PB82-153024

Water Resources Data for Wyoming
Water Year 1980. Volume 1. Missouri River Basin

(U.S.) Geological Survey
Cheyenne, WY

1980

U.S. Department of Commerce
National Technical Information Service
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DEPARTMENT OF THE INTERIOR
March 3, 1849

Water Resources Data for Wyoming

Volume 1. Missouri River Basin

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WY-80-1

WATER YEAR 1980

Prepared in cooperation with the State of Wyoming
and with other agencies

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U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA 22161

CALENDAR FOR WATER YEAR 1980

1979

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and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in Wyoming write to
District Chief, Water Resources Division
U.S. Geological Survey
2120 Capitol Avenue
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Cheyenne, Wyoming 82001

1981

PREFACE

This report was prepared by personnel of the Wyoming district of the Water Resources Division of the U.S. Geological Survey under the supervision of William W. Dudley, Jr., District Chief, and Alfred Clebsch, Jr., Regional Hydrologist, Central Region. It was done in cooperation with the State of Wyoming and with other agencies.

This report is one of a series issued by State. General direction for the series is by Philip Cohen, Chief Hydrologist, U.S. Geological Survey, and Robert J. Dingman, Assistant Chief Hydrologist for Scientific Publications and Data Management.

Data for Wyoming are in two volumes as follows:

Volume 1. Missouri River Basin
Volume 2. Green River, Bear River, and Snake River Basins

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Water resources data for the 1980 water year for Wyoming consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of wells. Volume 1 of this report contains discharge records for 161 gaging stations; stage only records for 1 lake; stage and contents for 11 lakes and reservoirs; water quality for 93 gaging stations, 44 ungaged stations, 100 wells and springs; and water levels for 36 observation wells. Also included are 74 crest-stage partial-record stations and 2 precipitation monitoring sites. Additional water data were collected at various sites, not part of the systematic data-collection program, and are published as miscellaneous measurements and analyses. This data represents that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Wyoming.

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Letter after station name designates type of data: [(d) discharge, (e) elevation, gage height, or contents, (c) chemical, (b) biological, (m) microbiological, (p) pesticides, (t) water temperature, (s) sediment]

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WATER RESOURCES DATA FOR WYOMING, 1980

VOLUME 1: MISSOURI RIVER BASIN
VOLUME 2: GREEN RIVER, BEAR RIVER, AND SNAKE RIVER BASINS

INTRODUCTION

Water resources data for the 1980 water year for Wyoming consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This volume contain discharge records for 161 gaging stations; stage only records for 1 lake; stage and contents for 11 lakes and reservoirs, water quality for 93 gaging stations, 44 ungaged stations, and 100 wells and springs; and water levels for 33 observation wells. Also included are 74 crest-stage partial-record stations and 2 precipitation monitoring sites. In Volume 1 (Missouri River basin) locations of gaging stations and peak-flow partial-record stations are shown in figures 4-6, and locations of observation wells and sites where water-quality data were collected from wells are shown in figures 7-9. In Volume 2 (Green River, Bear River, and Snake River basins) locations of gaging stations and peak-flow partial-record stations are shown in figures 4 and 5, and locations of observation wells and sites where water-quality data were collected from wells are shown in figures 6 and 7. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Wyoming.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a State-boundary basis. These official Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report WY-80-1." Water-Data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

COOPERATION

The U.S. Geological Survey and organizations of the State of Wyoming have had cooperative agreements for the systematic collection of streamflow records since 1895, for ground-water levels since 1940, and for water-quality records since 1946. Some records have been collected and computed by contractors in accordance with U.S. Geological Survey specifications and under Geological Survey quality control. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Wyoming State Engineer, George L. Christopulos

Wyoming Department of Agriculture, Larry J. Bourret, Commissioner of Agriculture

Wyoming Highway Department, Leno H. Menghini, Superintendent and Chief Engineer

Wyoming Department of Environmental Quality, Robert E. Sundin, Director

Wyoming Department of Economic Planning and Development, Myron W. Goodson, Chief of Water Development

Wyoming Game and Fish Department, Earl M. Thomas, Director

City of Cheyenne, Board of Public Utilities, Herman Noe, Director

Assistance in the form of funds and services was given by the Bureau of Land Management, U.S. Department of the Interior, in collecting records for 10 gaging stations, 12 water-quality stations, and 12 sediment stations; by the Environmental Protection Agency for 14 water-quality stations; by the Water and Power Resources Service, U.S. Department of the Interior for 10 gaging stations, 1 water-quality station, and 2 sediment stations; by the Bureau of Indian Affairs, U.S. Department of the Interior for 2 gaging stations and 1 water-quality station; and by the Corps of Engineers for 2 gaging stations, published in this report.

Organizations that supplied data are acknowledged in station descriptions.

HYDROLOGIC CONDITIONS

Streamflow at the beginning of the 1980 water year was near normal at the four index stations. The index stations are Tongue River near Dayton, North Platte River above Seminoe Reservoir near Sinclair, Green River at Warren Bridge near Daniel, and Bear River at Border. Monthly and annual means are compared with the median flows for the index sites in figure 3. The median is computed from the flows for the period 1941-70. The normal trend continued through the first half of the water year for all of the index stations and through the entire year for Green River at Warren Bridge near Daniel. Through the months of May, June, and July, the runoff was deficient for the Tongue River. This was indicitive of the below normal snowpack in the watershed. The snowpacks in the Upper North Platte River and Bear River watersheds was above normal and this is reflected in the above normal runoff for the months of April, May, June, and July. Runoff was near normal for all index sites during the months of August and September.

Reservoir storage in the Yellowstone River basin increased 187,000 acre-feet (231 hm^3) during the year. This includes the Anchor, Bull Lake, Boysen, Buffalo Bill, and Bighorn reservoirs. Storage in Keyhole Reservoir decreased 41,800 acre-feet (51.5 hm^3) with a maximum storage of 149,800 acre-feet (185 hm^3) on April 15-22. In the North Platte River basin, storage in the major reservoirs increased 82,800 acre-feet (102 hm^3). In the Green River basin, the storage contents increased 8,900 acre-feet (11.0 hm^3) in the Fontenelle Reservoir and increased 507,000 acre-feet (625 hm^3) in the Flaming Gorge Reservoir during the water year.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting English units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is the primary energy donor in cellular life process. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Recoverable from bottom material the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total in bottom material the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters(L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a steam or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/S, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Instantaneous discharge is the discharge at a particular instant of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Dissolved that material in a representative water sample which passes through a 0.45 µm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of matamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (µg/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle-size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.........	0.00024 - 0.004	Sedimentation.
Silt.........	.004 - .062	Sedimentation.
Sand.........	.062 - 2.0	Sedimentation or sieve.
Gravel.......	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respecitively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth (1×10^{12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(m^2.time) for periphyton and macrophytes and mg C/(m^3.time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactivity carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O_2/(m^2.time) for periphyton and macrophytes and mg O_2/(m^3.time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended, recoverable the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 m membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is the quantity of suspended sediment passing a section in a specified period.

Suspended, total the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 m membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Total the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total, recoverable the ammount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reaction with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45 micrometer filter.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom................Animal
Phylum..............Arthropoda
Class..................Insecta
Order............Ephemeroptera
Family.............Ephemeridae
Genus................Hexageria
Species......Hexagenia limbata

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the "1980 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual basic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 06630000, which appears just to the left of the station name, includes the 2-digit part number "06" plus the 6-digit downstream order number "630000".

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 1 below.

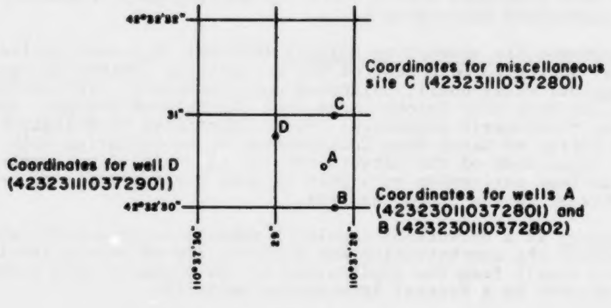

42°32'32"
Coordinates for miscellaneous site C (423231110372801)
31"
C
D
A
Coordinates for well D (423231110372901)
B
Coordinates for wells A (423230110372801) and B (423230110372802)
42°32'30"
110°37'30"
29"
110°37'28"

Figure 1.—System for numbering wells and miscellaneous sites (latitude and longitude).

In order to compare data for wells in other publications, such as the county ground-water studies, the wells in this report are also numbered according to a system based on the location in the public land classification of the U.S. Bureau of Land Management. The system is illustrated in figure 2. The first numeral denotes the township north of a base line, the second numeral denotes the range west of the fifth principal meridian, and the third numeral denotes the section in which the well is located. The letters A, B, C, and D designate, respectively, the northeast, northwest, southwest, and southeast quarter section, quarter-quarter section, and quarter-quarter-quarter section (10-acre or 4-hectare tract). For example, well 26N-063W-32CDA is in the NE¼SE¼SW¼ sec.32, T.26 N., R.63 W. Consecutive terminal numbers are added if more than one well is recorded within a 10-acre tract.

For a small irregularly-shaped area in west central Wyoming, the well numbers are based on the Wind River Meridian and Base Line system. The uppercase letter that begins the number designates the quadrant of the system. The quadrants are lettered A, B, C, and D in a counter-clockwise direction beginning with A in the northeast quadrant. Otherwise, the well numbers are the same as given in the preceding paragraph.

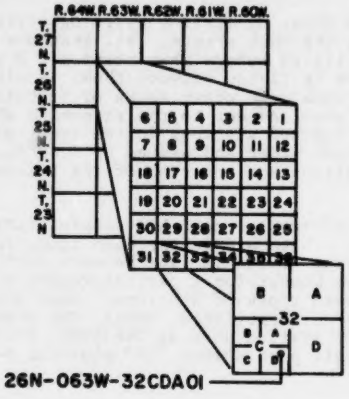


Figure 2.—System for numbering wells and miscellaneous sites (township and range).

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard text-books, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use, the datum of the present gage referred to National Geodetic Vertical Datum, and condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS".

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good", within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of discharge collected by agencies other than the Geological Survey

The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintains an index of such sites. Information on records available at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on the following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small daily temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of quantities of suspended sediment, records for the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figures 1 and 2.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to either National Geodetic Vertical Datum of 1929 or land-surface datum (lsd). National Geodetic Vertical Datum of 1929 is explained in the Definition of Terms paragraph. Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above National Geodetic Vertical Datum of 1929 is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

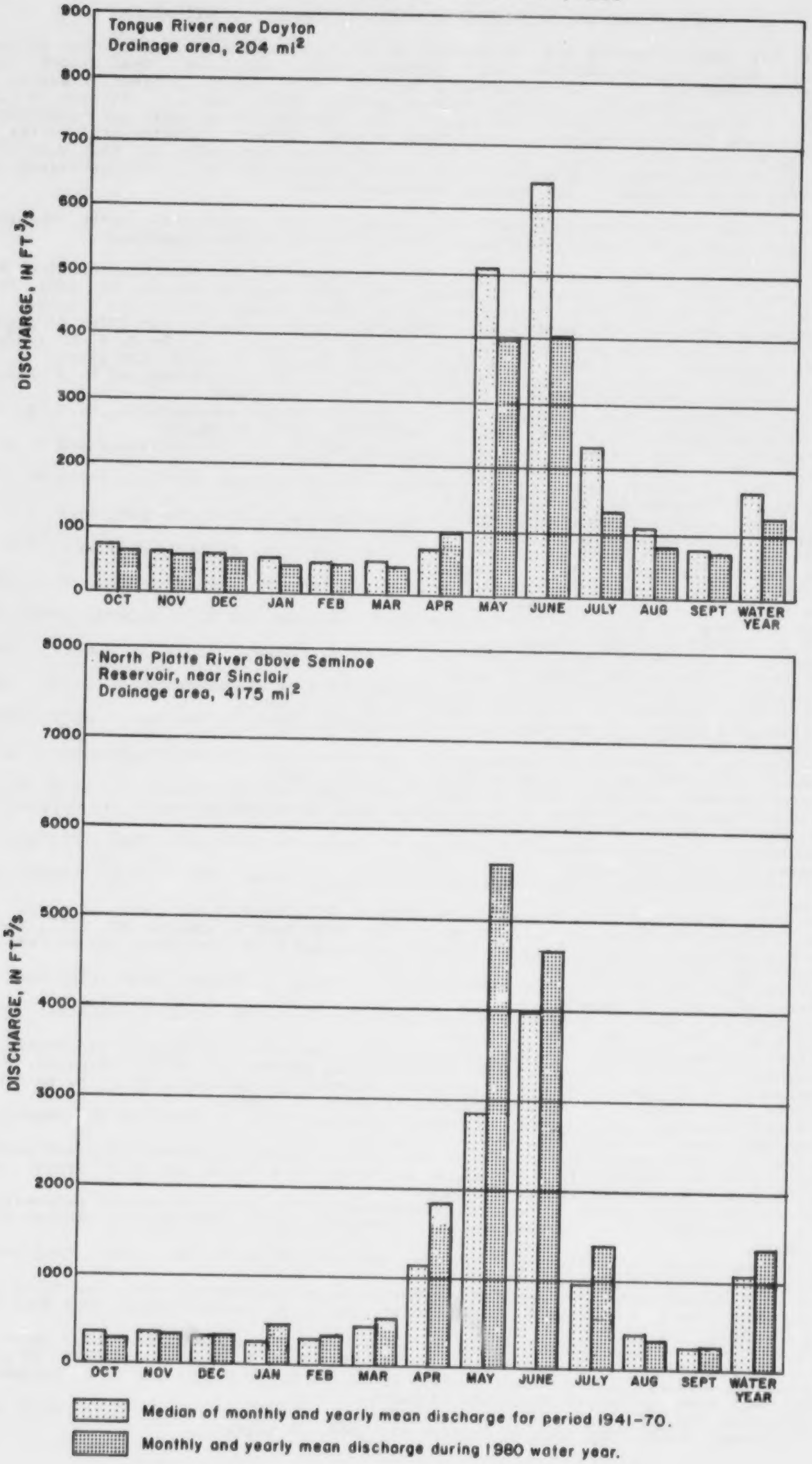
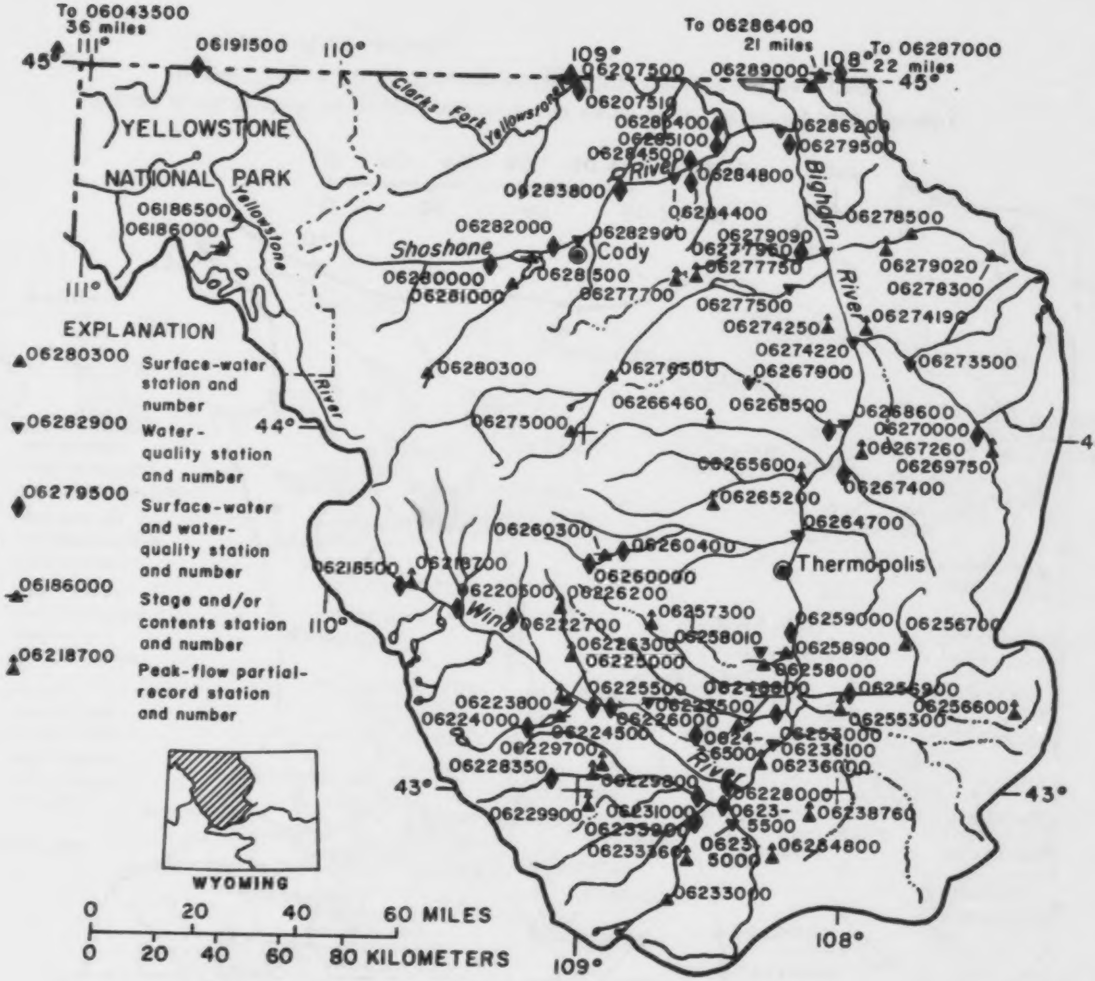


Figure 3.—Discharge during 1980 water year compared with median discharge for period 1941-70 for two representative gaging stations.


To 06043500
36 miles
45°
111°
06191500
110°
109°
To 06286400
21 miles
108°
To 06287000
22 miles
45°
YELLOWSTONE
NATIONAL PARK
Yellowstone
River
Clarks Fork Yellowstone
Shoshone
River
Bighorn
River
Wind
River
Cody
Thermopolis
06186500
06186000
111°
44°
110°
43°
109°
108°
43°
44°
06207500
06207510
06289000
06286400
06285100
06284500
06286200
06279500
06284800
06283800
06284400
06282000
06282900
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06226000
06229700
06228350
06229800
06256900
06256600
06255300
06253000
06236100
06236000
06228000
06238760
06229900
06231000
0623-
5500
0623
5000
06234800
06233360
06233000
EXPLANATION
06280300 Surface-water station and number
06282900 Water-quality station and number
06279500 Surface-water and water-quality station and number
06186000 Stage and/or contents station and number
06218700 Peak-flow partial-record station and number
WYOMING
0 20 40 60 MILES
0 20 40 60 80 KILOMETERS

Figure 4.—Location of gaging stations and peak-flow partial-record stations in the Yellowstone River, Clarks Fork Yellowstone River, and Bighorn River basins.

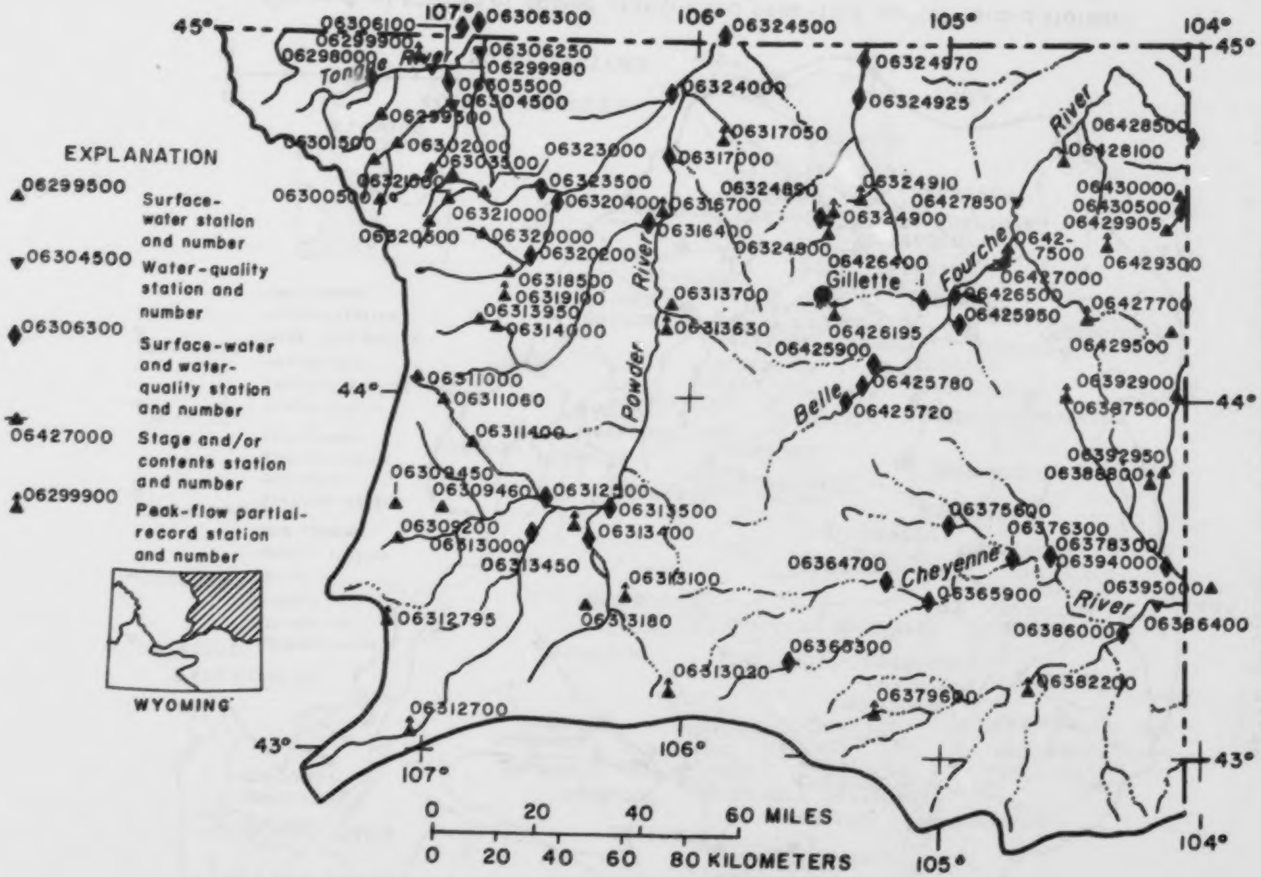
EXPLANATION
06299500 Surface-water station and number
06304500 Water-quality station and number
06306300 Surface-water and water-quality station and number
06427000 Stage and/or contents station and number
06299900 Peak-flow partial-record station and number
WYOMING
45°
44°
43°
107°
106°
105°
104°
Tongue River
Powder River
Belle Fourche River
Cheyenne River
Gillette
06306100
06299900
06298000
06306300
06306250
06299980
06305500
06304500
06299500
06301500
06302000
06303500
06323000
06321000
06300500
06321000
06323500
06320400
06320500
06320000
06320200
06318500
06319100
06313950
06314000
06311000
06311060
06311400
06309450
06309460
06312500
06309200
06313000
06313450
06313500
06313400
06313100
06313180
06312795
06313020
06312700
06324500
06324000
06317050
06317000
06316700
06316400
06313700
06313630
06324970
06324925
06324890
06324910
06324900
06324800
06426400
06426195
06425900
06425780
06425720
06427850
06426500
06425950
06428500
06428100
06430000
06430500
06429905
06429300
06427500
06427000
06427700
06429500
06392900
06387500
06392950
06388800
06375600
06376300
06378300
06394000
06364700
06365900
06395000
06386000
06386400
06366300
06382200
06379600
0 20 40 60 MILES
0 20 40 60 80 KILOMETERS

Figure 5.—Location of gaging stations and peak-flow partial-record stations in the Tongue River, Powder River, Belle Fourche River, and Cheyenne River basins.

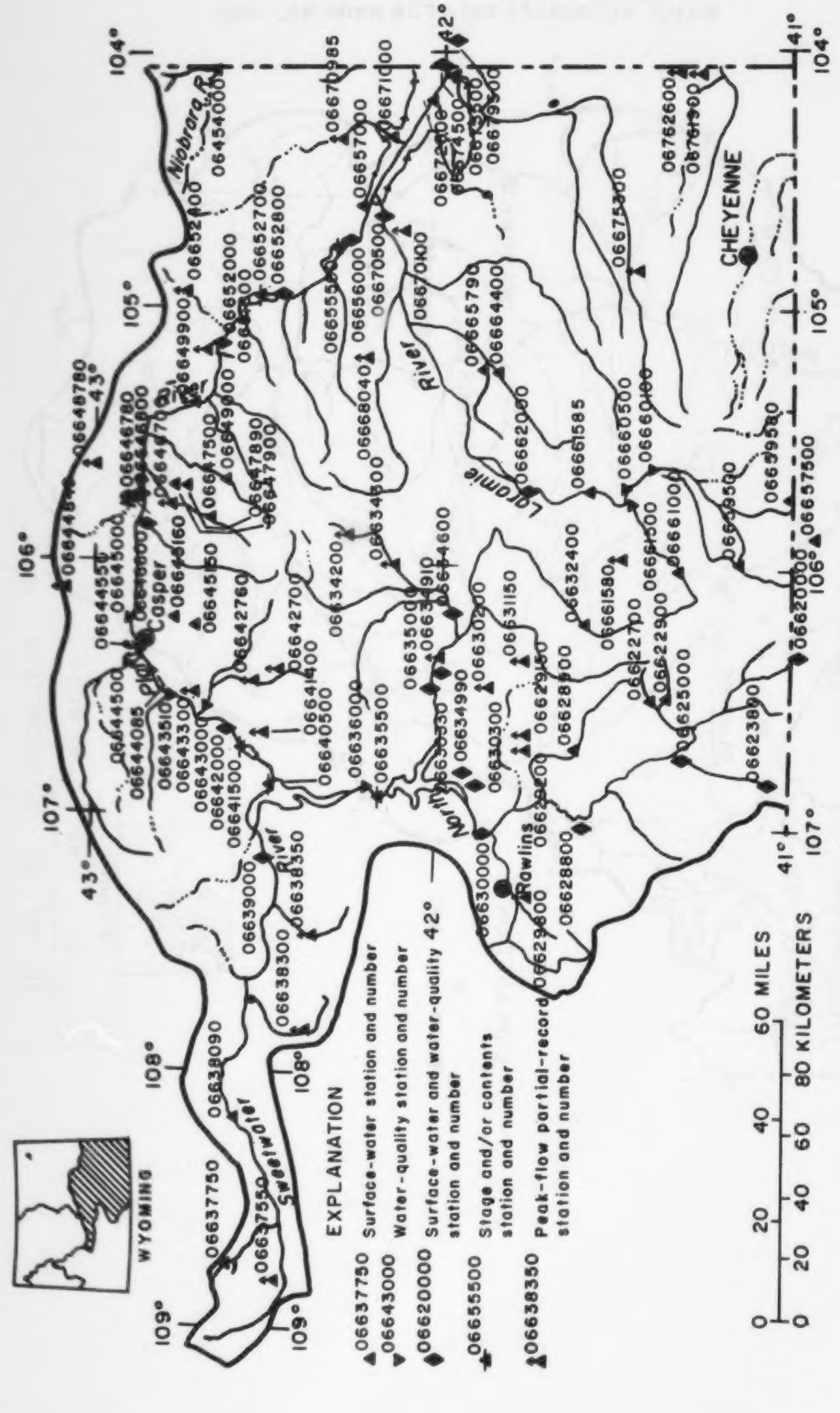
WYOMING
EXPLANATION
▲06637750 Surface-water station and number
▼06643000 Water-quality station and number
◆06620000 Surface-water and water-quality station and number
+06655500 Stage and/or contents station and number
▲06638350 Peak-flow partial-record station and number
Sweetwater
River
North
Platte
Casper
Rawlins
Laramie
River
Niobrara R.
CHEYENNE
109°
108°
107°
106°
105°
104°
43°
42°
41°
0 20 40 60 MILES
0 20 40 60 80 KILOMETERS

Figure 6.—Location of gaging stations and peak-flow partial-record stations in the Niobrara River and Platte River basins.

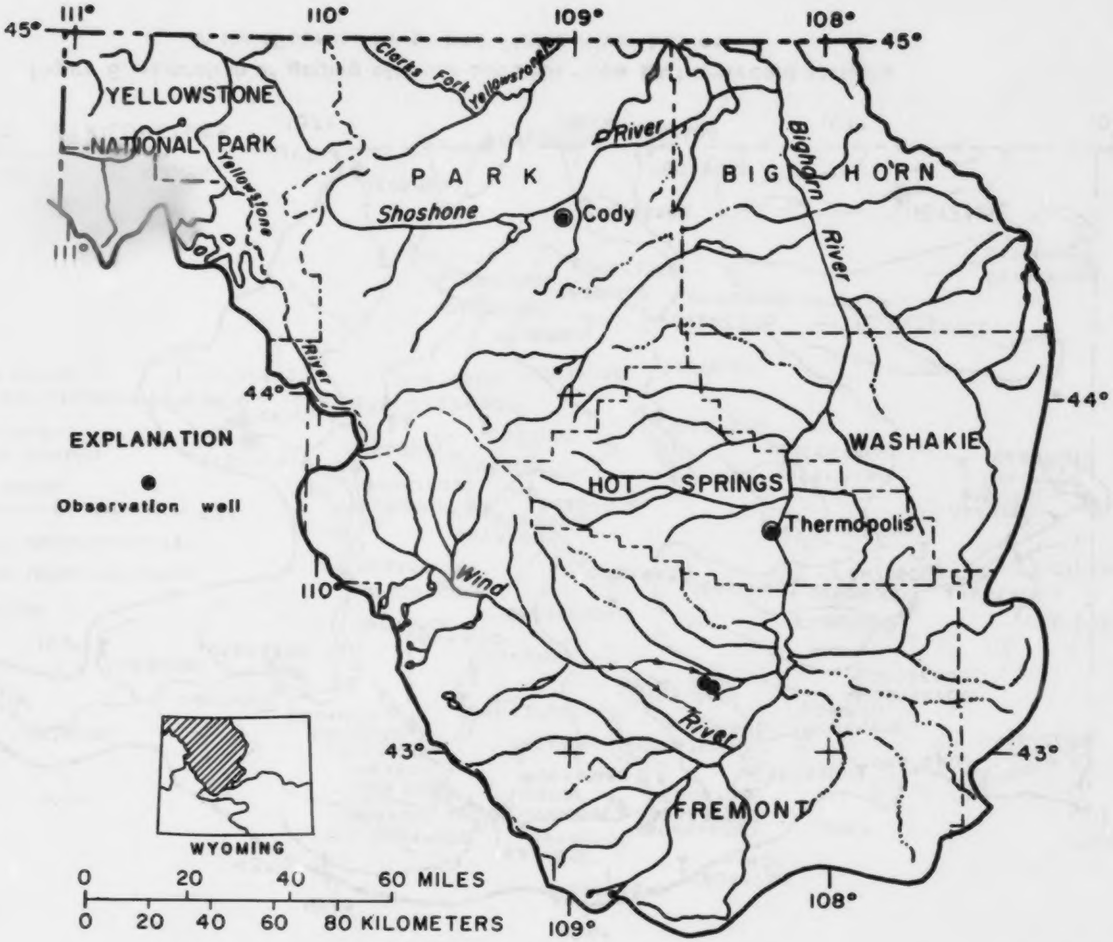
45°
111°
110°
109°
108°
45°
YELLOWSTONE
NATIONAL PARK
Clarks Fork Yellowstone
River
PARK
BIG HORN
Bighorn River
Shoshone
Cody
Yellowstone
River
44°
44°
WASHAKIE
HOT SPRINGS
Thermopolis
110°
Wind
River
43°
43°
FREMONT
109°
108°
111°
EXPLANATION
● Observation well
WYOMING
0 20 40 60 MILES
0 20 40 60 80 KILOMETERS

Figure 7.—Location of selected observation wells in the Yellowstone River, Clarks Fork Yellowstone River, and Bighorn River basins.

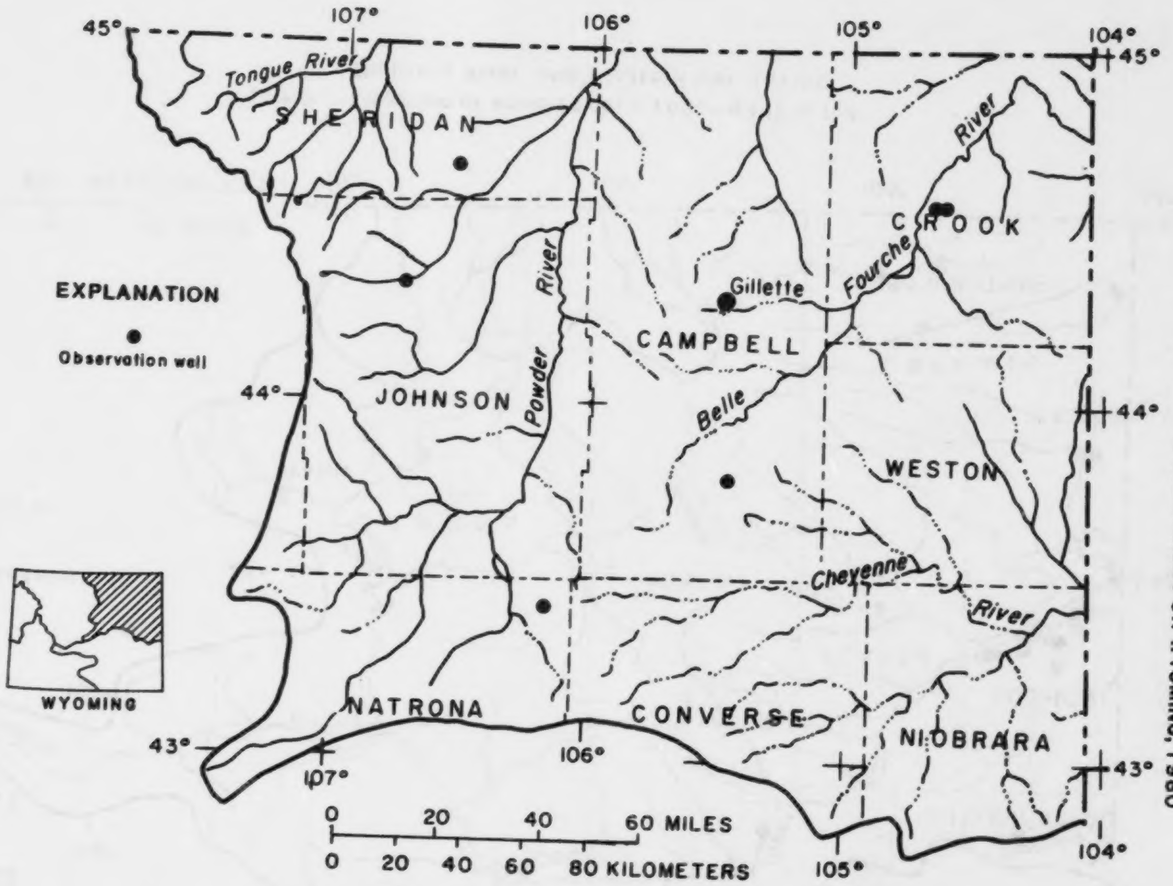
45°
107°
106°
105°
104°
45°
44°
43°
107°
106°
105°
104°
44°
43°
Tongue River
SHERIDAN
JOHNSON
Powder River
CAMPBELL
Gillette
Belle Fourche River
CROOK
WESTON
Cheyenne River
NATRONA
CONVERSE
NIOBRARA
EXPLANATION
● Observation well
WYOMING
0 20 40 60 MILES
0 20 40 60 80 KILOMETERS

Figure 8.—Location of selected observation wells in the Tongue River, Powder River, Belle Fourche River, and Cheyenne River basins.

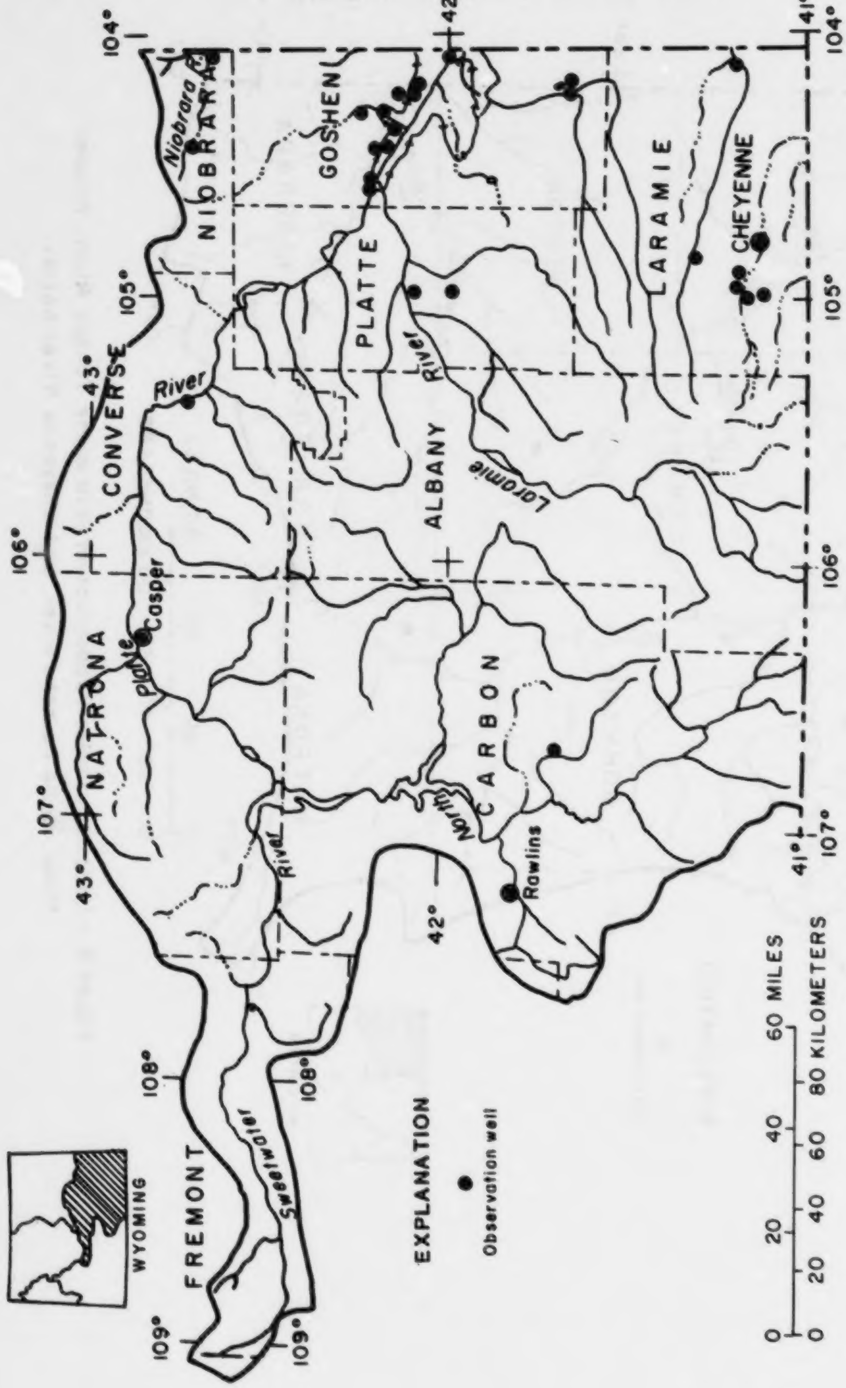
WYOMING
FREMONT
NATRONA
CONVERSE
NIOBRARA
GOSHEN
PLATTE
ALBANY
CARBON
LARAMIE
Casper
Rawlins
CHEYENNE
Sweetwater
River
Platte
North
River
Laramie
River
Niobrara R.
109°
108°
107°
106°
105°
104°
43°
42°
41°
EXPLANATION
Observation well
0 20 40 60 MILES
0 20 40 60 80 KILOMETERS

Figure 9.—Location of selected observation wells in the Niobrara River and Platte River basins.

06043500 GALLATIN RIVER NEAR GALLATIN GATEWAY, MT

LOCATION.--Lat 45°29'51", long 111°16'09", in SE¼SE¼SE¼ sec.7, T.4 S., R.4 E., Gallatin County, Hydrologic Unit 10020008, on left bank 0.3 mi (0.5 km) downstream from Spanish Creek, 7.3 mi (11.7 km) south of Gallatin Gateway, and at mile 47.7 (76.7 km), revised.

DRAINAGE AREA.--825 mi^2 (2,137 km^2).

PERIOD OF RECORD.--August 1889 to September 1894, June 1930 to September 1969, annual maximum, water years 1970-71, October 1971 to current year. Monthly discharge only for some periods, published in WSP 1309. Published as West Gallatin River near Bozeman 1889-94.

REVISED RECORDS.--WSP 1389: 1892(M), 1893-94. WSP 1559: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,167.7 ft (1,575.11 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 20, 1932, nonrecording gages at several different sites and datums within 0.8 mi (1.3 km) of present site.

REMARKS.--Records good. Diversions for irrigation of about 1,400 acres (5.67 km^2) above station.

AVERAGE DISCHARGE.--53 years, 814 ft^3/s (23.05 m^3/s), 589,700 acre-ft/yr (727 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,690 ft^3/s (274 m^3/s) June 17, 1974, gage height, 7.38 ft (2.249 m); minimum, 117 ft^3/s (3.31 m^3/s) Jan. 19, 1935, gage height, 0.68 ft (0.207 m), result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,900 ft^3/s (82.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 7	0515	3,010	85.2	3.93	1.198	June 21	0200	3,490	98.8	4.22	1.286
May 23	0115	*4,510	128	4.76	1.451						

Minimum discharge, 206 ft^3/s (5.83 m^3/s) Nov. 29, gage height, 1.07 ft (0.326 m), result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	375	344	295	332	280	296	274	1830	2120	1780	682	534
2	374	327	329	330	300	283	271	1860	2180	1710	660	514
3	374	365	334	320	290	284	263	1880	2080	1810	652	511
4	374	389	330	318	285	279	270	1930	1970	1800	646	492
5	374	372	326	322	280	275	287	2050	1890	1610	623	480
6	369	359	322	293	275	294	294	2250	1920	1500	610	473
7	368	344	320	284	290	283	279	2770	1850	1400	602	478
8	368	356	316	290	280	273	261	2760	1790	1380	594	535
9	368	356	317	311	280	273	277	2740	1970	1400	586	527
10	368	359	328	346	289	281	271	2460	2270	1310	575	501
11	374	366	278	310	286	297	270	2060	2710	1230	568	619
12	370	325	266	309	291	297	269	1790	2970	1140	568	751
13	368	329	288	317	293	264	274	1600	2900	1110	609	638
14	366	317	305	323	282	275	310	1480	2790	1080	580	705
15	386	323	308	316	282	292	352	1420	2790	1050	604	604
16	462	323	301	307	288	264	330	1600	2610	979	650	582
17	412	343	320	305	293	247	368	1820	2640	956	588	545
18	402	379	318	309	299	268	441	1830	2850	954	578	531
19	429	368	309	262	301	277	529	1950	2980	904	727	546
20	430	314	310	256	306	275	691	2480	3050	875	660	524
21	396	286	325	302	297	276	812	3190	3230	849	596	603
22	396	291	335	292	299	279	855	3880	3010	822	575	562
23	394	297	329	293	292	273	946	3930	2880	812	568	553
24	392	330	319	292	275	276	1100	3410	2440	814	569	556
25	397	320	327	292	271	277	1300	3120	2290	782	538	529
26	418	283	329	250	281	259	1430	2560	2280	758	545	518
27	395	283	298	240	301	273	1420	2300	2140	728	567	514
28	406	261	244	250	309	275	1460	2180	1850	706	628	505
29	383	227	267	255	305	272	1620	2090	1770	690	561	498
30	347	249	277	260	---	289	1720	2120	1790	698	535	485
31	324	---	319	270	---	272	---	2120	---	690	529	---
TOTAL	11959	9785	9589	9156	8400	8598	19244	71460	72010	34327	18573	16413
MEAN	386	326	309	295	290	277	641	2305	2400	1107	599	547
MAX	462	389	335	346	309	297	1720	3930	3230	1810	727	751
MIN	324	227	244	240	271	247	261	1420	1770	690	529	473
AC-FT	23720	19410	19020	18160	16660	17050	38170	141700	142800	68090	36840	32560

CAL YR 1979 TOTAL 264520 MEAN 725 MAX 4250 MIN 227 AC-FT 524700
WTR YR 1980 TOTAL 289514 MEAN 791 MAX 3930 MIN 227 AC-FT 574300

06186000 YELLOWSTONE LAKE AT BRIDGE BAY, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°32'00", long 110°26'20", Yellowstone National Park, Hydrologic Unit 10070001, at marina at Bridge Bay, 3.7 mi (6.0 km) southwest of lake outlet.

DRAINAGE AREA.--1,006 mi² (2,606 km²).

PERIOD OF RECORD.--October 1921 to current year (gage heights only). Prior to October 1966, published as Yellowstone Lake at Lake Hotel.

REVISED RECORDS.--WSP 1916: Drainage area.

GAGE.--Nonrecording gage usually read once daily except during winter months, when it is read occasionally. Datum of gage is 7,729.45 ft (2,355.936 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1966, nonrecording gages at Lake Hotel dock at same datum.

REMARKS.--No regulation.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 7.34 ft (2.237 m) June 28, 30, 1974; minimum observed, -0.1 ft (-0.03 m) Dec. 7, 8, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum gage height observed, 4.78 ft (1.457 m) July 9; minimum observed, 0.76 ft (0.232 m) Dec. 20.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---		---	---			---		---	4.63	3.86	2.77
2	---		---	---			---		---	4.67	3.78	2.76
3	---		---	---			---		---	4.68	3.70	2.70
4	---		---	---			---		---	4.72	3.66	2.69
5	---		---	---			1.14		---	4.74	3.70	2.67
6	---		---	---			---		---	4.76	3.54	---
7	---		---	---			---		---	4.74	3.53	2.62
8	---		---	---			---		---	4.75	3.52	2.57
9	---		---	.86			---		---	4.78	3.46	2.57
10	1.62		---	---			---		---	4.63	3.38	2.52
11	---		---	---			---		---	4.67	3.28	---
12	---		---	---			---		---	4.68	3.30	2.59
13	---		---	---			---		---	4.61	3.25	2.56
14	---		---	---			---		4.02	4.56	3.18	---
15	---		---	---			---		4.10	4.51	3.21	---
16	---		---	---			---		4.10	4.54	3.18	---
17	---		---	---			---		4.16	4.38	3.15	---
18	---		---	---			---		4.24	4.38	3.16	---
19	---		---	---			---		4.27	4.31	3.07	---
20	---		.76	---			---		4.33	4.36	3.05	---
21	---		---	---			---		---	4.28	3.02	---
22	---		---	---			---		---	4.26	2.91	---
23	---		---	---			---		4.53	4.20	2.88	---
24	1.44		---	---			---		4.55	4.16	2.88	---
25	---		---	---			---		4.63	4.20	---	2.50
26	---		---	---			---		4.61	4.12	2.88	---
27	---		---	---			---		4.65	4.08	2.85	---
28	---		---	---			---		4.64	4.02	2.85	---
29	---		---	---			---		4.63	3.98	2.77	---
30	---		---	---			---		4.64	3.90	2.79	---
31	1.34		---	---			---		---	3.88	2.76	---
MAX	---		---	---			---		---	4.78	---	---
MIN	---		---	---			---		---	3.88	---	---

06186500 YELLOWSTONE RIVER AT YELLOWSTONE LAKE OUTLET, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°34'03", long 110°22'48", Yellowstone National Park, Hydrologic Unit 10070001, on left bank 450 ft (137 m) downstream from Fishing Bridge, 0.3 mi (0.5 km), revised, downstream from outlet of Yellowstone Lake, and at mile 616.4 (991.8 km), revised.

DRAINAGE AREA.--1,006 mi^2 (2,606 km^2).

PERIOD OF RECORD.--December 1922 to current year (prior to October 1926, gage heights only). Monthly discharge only for winter periods in water years 1927-30, 1932-33, 1935-38, 1940, 1942-46, published in WSP 1309; figures of daily discharge for these months published in WSP 646, 666, 686, 701, 731, 746, 786, 806, 826, 856, 896, 956, 976, 1006, 1036, and 1056 have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1309: See PERIOD OF RECORD. WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,727.91 ft (2,355.467 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 2, 1928, nonrecording gage at site 450 ft (137 m) upstream at datum 1.07 ft (0.326 m) higher.

REMARKS.--Records good except those for winter period, which are poor. No artifical regulation.

AVERAGE DISCHARGE.--54 years (water years 1927-80), 1,322 ft^3/s (37.44 m^3/s), 17.85 in/yr (453 mm/yr), 957,800 acre-ft/yr (1.18 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,170 ft^3/s (260 m^3/s) June 28, 1974, gage height, 8.20 ft (2.499 m); minimum daily, 130 ft^3/s (3.68 m^3/s) Mar. 1-31, 1935, but may have been less during periods of ice effect; minimum gage height, 1.45 ft (0.442 m) Dec. 17, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,820 ft^3/s (108 m^3/s) July 4, gage height, 5.80 ft (1.768 m); maximum gage height, 5.90 ft (1.798 m) July 5 (owing to sieche); minimum daily discharge, 250 ft^3/s (7.08 m^3/s) Jan. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	792	557	390	320	300	448	460	557	2080	3610	2580	1440
2	769	552	400	320	320	448	456	580	2120	3630	2520	1420
3	753	543	408	320	340	440	456	605	2160	3740	2460	1410
4	747	548	400	320	340	420	456	635	2180	3770	2400	1380
5	736	548	390	320	320	410	452	670	2190	3770	2370	1340
6	725	543	386	310	310	410	460	709	2230	3770	2290	1320
7	714	534	383	310	310	420	460	742	2240	3720	2240	1300
8	697	525	379	300	310	430	456	792	2240	3710	2190	1260
9	687	521	376	300	310	440	456	834	2250	3710	2150	1230
10	687	516	370	300	310	440	468	858	2290	3720	2090	1230
11	676	503	360	300	310	440	468	907	2370	3670	2050	1250
12	665	503	340	310	300	448	472	928	2470	3600	1970	1240
13	660	494	320	330	290	452	468	942	2550	3580	1940	1250
14	650	489	330	350	290	456	468	956	2680	3520	1910	1240
15	645	480	330	350	280	468	464	970	2770	3490	1900	1230
16	640	480	310	330	290	472	460	991	2840	3400	1890	1250
17	630	472	320	310	320	472	456	1020	2880	3350	1860	1240
18	630	476	330	300	350	468	452	1040	2940	3230	1820	1210
19	650	468	330	290	380	468	448	1090	3020	3260	1790	1220
20	645	456	330	290	380	468	448	1140	3130	3200	1760	1200
21	635	430	320	310	350	468	452	1190	3230	3140	1720	1190
22	630	430	320	320	350	464	460	1290	3320	3080	1690	1180
23	615	430	320	330	350	460	460	1440	3380	3010	1670	1150
24	610	430	310	330	360	456	468	1600	3440	2950	1630	1140
25	605	420	320	330	400	460	476	1780	3530	2940	1600	1110
26	600	410	320	300	450	460	480	1880	3560	2920	1590	1100
27	590	400	320	270	456	460	489	1890	3610	2870	1560	1100
28	585	380	310	260	452	460	503	1930	3610	2800	1530	1070
29	570	380	320	250	448	460	521	1960	3580	2760	1500	1060
30	570	390	320	260	---	460	539	2000	3600	2710	1460	1070
31	561	---	320	270	---	460	---	2040	---	2630	1420	---
TOTAL	20369	14308	10682	9510	9976	13986	14032	35966	84490	103260	59550	36830
MEAN	657	477	345	307	344	451	468	1160	2816	3331	1921	1228
MAX	792	557	408	350	456	472	539	2040	3610	3770	2580	1440
MIN	561	380	310	250	280	410	448	557	2080	2630	1420	1060
AC-FT	40400	28380	21190	18860	19790	27740	27830	71340	167600	204800	118100	73050

CAL YR 1979 TOTAL 398070 MEAN 1091 MAX 3710 MIN 280 AC-FT 789600
WTR YR 1980 TOTAL 412959 MEAN 1128 MAX 3770 MIN 250 AC-FT 819100

06191500 YELLOWSTONE RIVER AT CORWIN SPRINGS, MT

LOCATION.--Lat 45°06'43", long 110°47'37", in SE¼NW¼ sec.30, T.8 S., R.8 E., Park County, Hydrologic Unit 10070002, on left bank 20 ft (6 m) downstream from highway bridge at Corwin Springs, 1.3 mi (2.1 km) upstream from Mol Herron Creek, 7 mi (11 km) northwest of Gardiner, and at mile 549.7 (884.5 km), revised.

DRAINAGE AREA.--2,623 mi^2 (6,794 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1889 to November 1893 (published as "at Horr"), September 1910 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1912. WSP 1509: 1889-94, 1911, 1913, 1916-18, 1920-21, 1925, 1927. WSP 1559: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,079.09 ft (1,548.107 m), National Geodetic Vertical Datum of 1929. Aug. 12, 1889, to Nov. 4, 1893, nonrecording gages at site 2 mi (3 km) upstream at different datums. Sept. 2, 1910, to Apr. 19, 1935, nonrecording gages on bridge at present datum.

REMARKS.--Records good except those for winter periods, which are fair. Natural storage in Yellowstone Lake. Diversions for irrigation of about 960 acres (3.89 km^2) of which 40 acres (162,000 m^2) are below station.

AVERAGE DISCHARGE.--74 years, 3,112 ft^3/s (88.13 m^3/s), 16.11 in/yr (409 mm/yr), 2,255,000 acre-ft/yr (2.78 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 32,000 ft^3/s (906 m^3/s) June 14, 15, 1918, gage height, 11.5 ft (3.51 m), from rating curve extended above 18,000 ft^3/s (510 m^3/s); minimum observed, 389 ft^3/s (11.0 m^3/s) Feb. 23, Mar. 5, 9, 1937, gage height, 0.05 ft (0.015 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 12,000 ft^3/s (340 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 24	0100	*12,800	362	6.71	2.045

Minimum daily discharge, 410 ft^3/s (11.6 m^3/s) Jan. 30 (result of freezeup).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1270	931	850	684	500	802	748	4920	7160	6780	3500	2190
2	1260	916	844	666	640	809	823	4980	7220	6700	3470	2190
3	1210	977	830	659	780	844	802	4880	6910	7190	3350	2180
4	1200	1030	837	666	760	809	830	5280	6630	7060	3230	2120
5	1200	1040	837	659	740	782	830	5700	6510	6550	3130	2010
6	1190	992	816	620	720	844	865	6380	6360	6260	3060	1950
7	1170	961	823	580	710	823	865	6700	6310	6050	2980	1910
8	1160	954	823	520	690	802	816	6700	6290	5980	2910	1930
9	1130	961	823	500	620	809	872	6750	6680	5930	2860	1920
10	1130	961	837	560	630	802	872	6550	7720	5700	2800	1880
11	1130	961	722	620	635	809	837	5390	8950	5520	2710	2130
12	1120	894	672	647	641	823	816	4650	10100	5300	2650	2740
13	1100	894	647	653	618	742	816	4200	10300	5170	2620	2410
14	1090	851	640	666	620	768	844	4020	9870	5060	2600	2480
15	1090	865	640	672	590	823	909	4020	9590	5060	2580	2240
16	1130	865	620	678	640	802	816	4340	8800	4880	2680	2370
17	1130	909	640	684	703	768	887	4880	8690	4790	2640	2320
18	1130	946	680	697	768	809	954	5430	9220	4830	2570	2160
19	1180	924	666	635	802	809	1060	5720	9970	4630	2600	2540
20	1250	782	684	600	823	809	1280	7090	10300	4530	2670	2430
21	1200	740	703	660	775	809	1600	9500	10700	4380	2550	2330
22	1150	760	716	660	775	816	1910	11200	9940	4260	2430	2340
23	1130	780	709	678	782	775	2140	12200	9470	4170	2350	2240
24	1130	870	684	684	768	823	2650	11800	8800	4090	2290	2220
25	1130	872	716	690	761	823	2920	10300	8280	4170	2230	2150
26	1150	816	697	680	761	775	3180	8510	8060	4150	2320	2090
27	1130	802	582	620	809	809	3210	7560	7810	3920	2360	2040
28	1100	720	540	450	809	802	3280	7300	7010	3790	2340	2000
29	1090	720	610	410	816	795	3670	7030	6800	3720	2230	1970
30	984	780	710	430	---	809	4060	7010	6650	3680	2120	1920
31	946	---	670	470	---	755	---	6730	---	3580	2100	---
TOTAL	35410	26474	22268	19098	20686	24879	46162	207720	247100	157880	82930	65400
MEAN	1142	882	718	616	713	803	1539	6701	8237	5093	2675	2180
MAX	1270	1040	850	697	823	844	4060	12200	10700	7190	3500	2740
MIN	946	720	540	410	500	742	748	4020	6290	3580	2100	1880
AC-FT	70240	52510	44170	37880	41030	49350	91560	412000	490100	313200	164500	129700

CAL YR 1979 TOTAL 973662 MEAN 2668 MAX 15900 MIN 540 AC-FT 1931000
WTR YR 1980 TOTAL 956007 MEAN 2612 MAX 12200 MIN 410 AC-FT 1896000

YELLOWSTONE RIVER BASIN

06191500 YELLOWSTONE RIVER AT CORWIN SPRINGS, MT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965, 1969-74, 1977 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1977 to current year.

INSTRUMENTATION.--Temperature recorder since June 28, 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 21.5°C July 22, 23, 1977; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 18.5°C July 24, 28, Aug. 1, 2, 13; minimum, 0.0°C on many days during November to March.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.0	10.5	12.0	2.5	1.0	1.5	.0	.0	.0			
2	13.0	11.0	11.5	2.5	.5	1.5	.5	.0	.0			
3	12.0	9.5	10.5	3.0	1.5	2.5	2.0	.5	1.0			
4	11.0	8.5	10.0	3.5	2.5	3.0	3.0	2.0	2.5			
5	11.5	9.0	10.5	4.0	2.5	3.0	3.0	2.0	2.5			
6	13.0	9.5	11.0	4.0	2.0	3.0	3.0	2.5	2.5			
7	12.5	10.0	11.5	3.5	2.0	2.5	3.5	2.5	3.0			
8	12.0	9.5	11.0	3.5	2.0	2.5	4.5	3.0	3.5			
9	11.5	8.5	9.5	3.0	1.5	2.5	4.5	3.0	3.5			
10	10.5	8.0	9.5	3.5	2.0	2.5	4.0	1.5	3.0			
11	12.0	8.5	10.0	3.5	2.0	2.5	1.5	.0	.5			
12	12.0	9.5	10.5	3.0	1.0	2.0	.0	.0	.0			
13	12.0	9.0	10.5	2.0	.0	1.0	.5	.0	.0			
14	10.5	9.0	10.0	2.0	.5	1.0	.5	.0	.0			
15	9.5	9.0	9.5	2.0	.0	1.0	1.5	.0	.5			
16	10.5	8.5	9.5	1.5	.0	1.0	.5	.0	.0			
17	10.0	8.0	9.0	3.5	1.0	2.0	2.0	.5	1.0			
18	9.0	7.5	8.5	4.0	3.0	3.5	2.5	1.0	1.5			
19	9.0	8.0	8.5	4.0	1.5	3.0	1.5	.0	1.0			
20	8.0	6.0	7.0	1.5	.0	.5	2.5	1.0	2.0			
21	6.5	4.5	5.5	.5	.0	.0	3.5	2.0	3.0			
22	6.0	4.5	5.5	.0	.0	.0	4.0	3.0	3.5			
23	7.5	5.5	6.5	.5	.0	.0	3.0	1.5	2.5			
24	8.0	7.0	7.5	.0	.0	.0	2.5	1.5	2.0			
25	9.0	7.0	8.0	1.5	.0	.5	3.5	2.0	3.0			
26	9.0	7.5	8.0	1.0	.0	.5	3.5	1.5	3.0			
27	7.5	6.0	6.5	.5	.0	.0	1.5	.0	.5			
28	6.0	5.0	5.5	.0	.0	.0	.0	.0	.0			
29	6.0	4.0	5.0	.0	.0	.0	.0	.0	.0			
30	4.5	2.5	3.5	.0	.0	.0	.0	.0	.0			
31	3.5	1.0	2.0	---	---	---	.0	.0	.0			
MONTH	13.0	1.0	8.5	4.0	.0	1.5	4.5	.0	1.5			

06191500 YELLOWSTONE RIVER AT CORWIN SPRINGS, MT--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	7.0	3.5	5.0	6.5	3.0	4.5	7.5	6.5	7.0
2	---	---	---	5.0	3.0	4.0	5.5	3.5	4.5	7.0	6.0	6.5
3	---	---	---	4.0	1.5	3.5	3.5	3.0	3.0	7.0	6.5	7.0
4	---	---	---	2.0	.0	1.0	7.5	3.5	5.5	8.0	7.0	7.5
5	---	---	---	1.0	.0	.5	8.0	4.5	6.0	8.0	7.0	7.5
6	---	---	---	3.5	.5	2.0	8.5	5.0	6.5	8.0	7.0	7.5
7	4.0	---	---	4.5	2.5	3.5	7.5	4.0	5.5	8.5	7.0	7.5
8	3.0	1.5	2.0	4.5	1.5	3.0	6.5	2.5	5.0	7.0	6.5	7.0
9	1.5	.0	1.0	4.0	2.5	3.0	5.5	4.0	5.0	7.0	6.5	7.0
10	1.5	.0	1.0	6.5	3.5	4.5	6.5	3.5	5.0	7.5	5.0	6.0
11	2.5	.5	1.5	7.5	4.5	5.5	8.0	5.0	6.0	5.0	4.5	4.5
12	2.5	1.0	2.0	5.5	3.5	4.5	8.5	4.5	6.0	6.5	5.0	6.0
13	2.0	.0	.5	4.5	2.0	3.5	9.5	4.0	7.0	7.5	6.0	6.5
14	.0	.0	.0	6.0	3.5	4.5	10.5	5.5	8.0	9.5	7.0	8.0
15	.0	.0	.0	4.0	2.5	3.5	9.5	7.0	8.0	8.5	7.5	8.0
16	.0	.0	.0	5.0	1.5	3.0	10.5	6.0	8.5	8.5	8.0	8.5
17	3.0	.0	1.5	3.5	.5	2.0	11.0	6.0	8.5	8.5	7.5	8.0
18	5.0	3.0	4.0	4.5	1.0	3.0	11.0	7.0	9.0	8.5	7.5	8.0
19	6.0	4.5	5.0	5.5	3.0	4.0	12.0	8.0	10.0	9.0	8.0	8.5
20	5.5	4.5	5.0	5.5	3.0	4.5	11.5	8.0	10.0	10.0	8.0	8.5
21	6.0	4.0	5.0	6.5	3.0	4.5	11.0	8.0	9.0	10.0	6.5	8.5
22	5.5	3.5	4.5	7.0	3.5	5.0	8.5	7.5	8.0	10.0	6.5	8.0
23	5.0	3.0	4.0	5.5	3.5	4.5	8.0	6.5	7.5	9.5	6.0	7.0
24	4.5	1.5	3.0	6.0	3.5	4.5	8.5	7.0	7.5	8.0	5.5	6.5
25	3.5	1.0	2.0	5.0	2.5	3.5	8.5	6.5	7.5	8.0	4.0	5.5
26	4.5	1.5	3.5	6.0	1.5	3.5	8.5	6.5	7.5	5.5	4.0	4.5
27	7.0	3.5	5.0	6.5	3.0	4.5	8.5	6.5	7.5	7.0	5.0	6.0
28	6.0	3.5	5.0	7.5	3.5	5.0	9.0	6.5	7.5	8.0	6.5	7.0
29	6.0	3.5	4.5	7.5	3.5	5.5	8.0	7.0	7.5	8.0	7.5	7.5
30	---	---	---	5.0	3.0	4.0	8.5	7.0	7.5	7.5	7.0	7.5
31	---	---	---	6.0	2.5	4.0	---	---	---	8.0	7.0	7.5
MONTH	7.0	.0	2.5	7.5	.0	4.0	12.0	2.5	7.0	10.0	4.0	7.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.0	7.0	8.0	13.0	11.0	11.5	18.5	17.0	18.0	14.0	11.5	13.0
2	9.0	8.0	8.5	14.0	13.0	13.5	18.5	16.5	17.5	13.5	12.0	13.0
3	8.5	7.5	8.0	14.0	12.0	13.0	17.5	15.5	17.0	15.0	12.5	13.5
4	8.5	7.5	8.0	13.0	12.0	12.5	16.0	14.0	15.0	15.5	12.0	13.5
5	9.0	8.5	8.5	14.0	13.0	13.5	16.5	13.0	15.0	15.5	12.0	14.0
6	8.5	7.0	7.5	14.5	13.5	14.0	17.5	15.0	16.0	16.5	13.0	15.0
7	8.5	7.0	8.0	15.0	14.0	14.5	17.5	15.0	16.0	16.5	14.5	15.5
8	11.0	9.0	10.0	15.0	13.5	14.5	18.0	15.5	16.5	16.0	14.5	15.0
9	11.5	10.5	11.0	16.0	14.5	15.0	17.5	15.5	16.5	17.0	14.0	15.5
10	12.0	10.0	11.0	16.5	15.0	16.0	18.0	15.5	16.5	16.5	15.0	15.5
11	11.5	9.5	10.5	16.0	14.5	15.5	18.0	15.5	16.5	16.0	14.5	15.5
12	11.0	9.0	10.0	16.0	15.0	15.5	18.0	15.5	16.5	15.0	13.5	14.0
13	10.5	8.0	9.0	16.0	15.0	15.5	18.5	16.5	17.0	14.0	13.5	13.5
14	10.5	8.0	9.0	15.0	14.0	14.0	17.5	16.0	16.5	15.0	13.0	14.0
15	8.5	7.5	8.0	15.0	13.5	14.5	16.0	15.0	16.0	15.0	12.0	13.5
16	10.5	7.5	8.5	16.0	14.5	15.0	16.5	14.5	15.5	14.0	12.0	13.0
17	11.5	9.5	10.5	16.0	14.5	15.5	17.0	14.5	15.5	14.5	12.0	13.0
18	11.5	9.5	10.5	15.0	13.5	14.5	15.5	14.0	15.0	14.0	12.0	13.0
19	12.0	10.5	11.0	16.0	15.0	15.5	14.0	13.0	13.5	13.0	11.5	12.5
20	12.0	10.0	11.0	16.0	14.5	15.5	14.0	12.0	13.0	12.0	11.0	11.5
21	12.0	10.5	11.5	17.0	15.0	16.0	15.0	12.5	13.5	11.5	10.0	10.5
22	12.5	10.5	11.5	18.0	16.5	17.0	15.5	13.5	14.5	10.5	9.0	10.0
23	12.5	10.5	11.5	17.5	17.0	17.5	16.5	14.0	15.0	12.0	9.5	10.5
24	11.5	10.0	10.5	18.5	16.5	17.5	17.0	14.0	15.5	11.5	10.0	10.5
25	13.0	11.0	11.5	18.0	16.5	17.5	16.0	14.0	15.0	11.5	9.0	10.0
26	13.0	12.0	12.5	17.5	16.0	17.0	17.5	14.5	15.5	12.0	9.0	10.0
27	13.0	10.0	11.5	18.0	16.5	17.5	16.5	14.0	15.0	12.5	10.0	11.0
28	11.5	9.5	10.5	18.5	16.5	17.5	14.5	13.0	14.0	13.0	10.5	11.5
29	12.0	11.5	11.5	17.5	16.5	17.0	15.0	12.5	14.0	13.0	10.0	11.5
30	12.0	11.5	11.5	17.5	15.5	16.5	13.5	12.5	13.0	13.0	10.0	11.5
31	---	---	---	18.0	16.0	17.0	13.5	12.0	12.5	---	---	---
MONTH	13.0	7.0	10.0	18.5	11.0	15.5	18.5	12.0	15.5	17.0	9.0	13.0
YEAR	18.5	.0	8.0									

06207500 CLARKS FORK YELLOWSTONE RIVER NEAR BELFRY, MT

LOCATION.--Lat 45°00'37", long 109°03'53", in NW¼SW¼NW¼ sec.32, T.9 S., R.22 E., Carbon County, Hydrologic Unit 10070006, on left bank 0.2 mi (0.3 km) upstream from county road bridge and Big Sand Coulee, 0.8 mi (1.3 km) north of Wyoming-Montana State line, 9.5 mi (15.3 km) southwest of Belfry, and at mile 71.2 (114.6 km), revised.

DRAINAGE AREA.--1,154 mi² (2,989 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1921 to current year. Monthly discharge only for some periods, published in WSP 1309. Published as Clarks Fork at Chance prior to October 1956 and as Clarks Fork Yellowstone River at Chance October 1956 to September 1968.

REVISED RECORDS.--WSP 1309: 1922(M). WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,986.24 ft (1,215.006 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Nov. 15, 1934, nonrecording gage, and Nov. 15, 1934, to July 26, 1951, water-stage recorder at bridge 0.4 mi (0.6 km) downstream at different datum. July 27, 1951, to Sept. 30, 1953, water-stage recorder at present site at datum 0.98 ft (0.299 m) higher.

REMARKS.--Records good except those for January and February, which are poor. Diversions for irrigation of about 11,100 acres (44.9 km²) above station.

AVERAGE DISCHARGE.--59 years, 953 ft³/s (26.99 m³/s), 690,400 acre-ft/yr (851 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,700 ft³/s (360 m³/s) July 6, 1975, gage height, 8.77 ft (2.673 m); minimum observed, 32 ft³/s (0.91 m³/s) Apr. 26, 1961, result of discharge measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,400 ft³/s (153 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 23	0606	*8,590	243	7.19	2.192	June 22	0200	6,360	180	6.18	1.884
June 13	0500	6,120	173	6.06	1.847						

Minimum discharge, 113 ft³/s (3.20 m³/s) all or part of each day Oct. 7-9, 14, 15, gage height, 0.75 ft (0.229 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	145	247	277	230	211	180	1770	2100	2980	578	254
2	133	151	296	254	240	225	183	1950	2040	2820	578	277
3	130	200	340	236	280	210	183	1830	1890	3220	512	325
4	124	204	322	251	269	190	180	2060	1820	3220	483	381
5	121	232	300	262	240	230	183	2190	1820	2810	423	288
6	119	288	285	210	236	220	187	2620	1820	2530	363	269
7	116	288	285	190	230	230	187	2910	1730	2390	331	254
8	113	277	277	180	210	236	177	3090	1690	2220	313	243
9	116	292	285	170	190	232	177	2950	2160	2490	304	254
10	121	285	273	190	200	229	190	3310	3120	2390	288	266
11	119	285	240	230	210	232	193	2760	4520	2190	273	520
12	116	266	170	260	210	221	187	2130	5250	1950	262	964
13	116	258	210	310	200	200	183	1840	5750	1720	262	1210
14	116	262	281	304	190	221	193	1490	5540	1500	277	1430
15	121	262	240	296	180	218	225	1390	5010	1350	285	1210
16	136	266	180	285	200	211	254	1390	4170	1220	309	1440
17	139	266	260	269	230	183	229	1950	4000	1190	345	1140
18	139	273	331	266	260	211	236	1980	4180	1280	269	908
19	139	277	292	250	280	214	304	2210	4730	1220	258	1380
20	142	269	285	230	281	207	483	2880	5480	1090	269	1230
21	151	229	273	251	266	200	781	4910	5930	980	266	1080
22	148	214	269	285	254	204	916	7110	5970	932	236	1040
23	145	236	266	266	232	197	948	8170	5480	916	221	924
24	142	273	240	277	229	187	996	7330	4660	900	214	879
25	142	288	254	220	225	190	1130	5690	4130	1030	200	802
26	163	273	247	170	232	183	1220	4180	4150	948	197	739
27	163	254	207	160	251	177	1310	3100	4230	823	285	690
28	154	258	173	160	258	183	1290	2600	3430	760	254	620
29	160	232	163	170	232	177	1410	2300	2910	711	247	578
30	170	221	200	180	---	180	1510	2160	2730	655	229	548
31	160	---	225	200	---	187	---	1930	---	641	229	---
TOTAL	4210	7524	7916	7259	6745	6396	15825	94180	112440	51076	9560	22143
MEAN	136	251	255	234	233	206	528	3038	3748	1648	308	738
MAX	170	292	340	310	281	236	1510	8170	5970	3220	578	1440
MIN	113	145	163	160	180	177	177	1390	1690	641	197	243
AC-FT	8350	14920	15700	14400	13380	12690	31390	186800	223000	101300	18960	43920

CAL YR 1979 TOTAL 316744 MEAN 868 MAX 7580 MIN 113 AC-FT 628300
WTR YR 1980 TOTAL 345274 MEAN 943 MAX 8170 MIN 113 AC-FT 684900

06207500 CLARKS FORK YELLOWSTONE RIVER NEAR BELFRY, MT--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge on county road, 0.4 mi (0.6 km) downstream from discharge station, just upstream from Sand Coulee, 0.8 mi (1.3 km) north of Wyoming-Montana State line, 9.5 mi (15.3 km) southwest of Belfry, and at mile 78.1 (125.7 km).

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM AD-SORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT												
02...	1040	133	--	7.7	12.0	180	16	51	12	13	.4	2.5
NOV												
14...	0830	258	350	8.2	2.5	160	21	43	12	12	.4	1.8
27...	1435	235	--	--	2.5	170	34	48	12	11	.4	1.5
DEC												
18...	1420	327	--	--	5.0	150	20	43	11	12	.4	1.2
JAN												
23...	1400	261	--	--	3.5	140	16	38	10	11	.4	1.5
FEB												
26...	1230	240	460	8.5	4.0	150	22	41	12	12	.4	1.8
APR												
09...	1100	169	450	8.4	6.0	170	31	25	27	15	.5	1.3
MAY												
06...	1130	2770	80	7.4	10.5	39	0	10	3.4	5.4	.4	.1
29...	1130	2180	117	8.2	8.5	50	2	12	4.6	5.8	.4	1.6
JUN												
24...	1400	4550	80	8.3	14.0	35	2	8.0	3.6	11	.8	.9
JUL												
18...	0900	1370	130	--	11.0	60	3	16	4.8	4.5	.3	1.0
AUG												
11...	1335	276	250	8.5	18.5	130	5	35	11	11	.4	2.0
SEP												
12...	1035	1060	200	8.2	12.0	76	4	24	3.9	8.4	.4	.1

DATE	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT												
02...	200	0	160	37	2.6	.2	8.6	224	.30	80.4	.90	.040
NOV												
14...	170	0	140	49	.7	.2	7.7	209	.28	146	.20	.000
27...	160	3	140	52	2.6	.2	8.6	221	.30	140	.80	.000
DEC												
18...	150	4	130	46	.9	.2	9.8	206	.28	182	.17	.070
JAN												
23...	140	3	120	34	1.4	.3	8.1	177	.24	125	.26	.020
FEB												
26...	150	3	130	56	.7	.2	8.1	212	.29	137	.16	.030
APR												
09...	170	0	140	58	1.5	.3	9.9	220	.30	100	.30	.030
MAY												
06...	61	0	50	--	.2	.1	8.3	--	--	--	.12	.340
29...	58	0	48	12	.0	.1	9.2	62	.08	365	.06	.110
JUN												
24...	40	0	33	20	3.4	.4	6.5	74	.10	909	1.1	.070
JUL												
18...	70	0	57	15	.8	.1	7.3	85	.12	314	.16	.050
AUG												
11...	140	6	120	28	1.1	.2	7.1	171	.23	127	.17	.030
SEP												
12...	88	0	72	23	.5	--	5.7	110	.15	315	.26	--

06207500 CLARKS FORK YELLOWSTONE RIVER NEAR BELFRY, MT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN									
24...	1400	.00	0	.00	.0	.00	0	.00	.0
AUG									
11...	1335	.00	0	.00	.0	.00	0	.00	.0
SEP									
12...	1035	.00	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
JUN				
24...	.00	.0	.00	.0
AUG				
11...	.00	.0	.00	.0
SEP				
12...	.00	.0	.00	.0

06207510 BIG SAND COULEE AT WYOMING-MONTANA STATE LINE

LOCATION.--Lat 45°00'17", long 109°03'29", in SE¼NE¼SW¼ sec.32, T.9 S., R.22 E., Carbon County, MT., Hydrologic Unit 10070006, on right bank 0.3 mi (0.5 km) north of Wyoming-Montana State line and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--134 mi² (347 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1973 to current year (no winter records).

GAGE.--Water-stage recorder. Altitude of gage is 4,000 ft (1,219 m), from topographic map.

REMARKS.--Records good except those for Mar. 1 to Apr. 18, which are poor. Natural flow of stream affected by transbasin diversions and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 478 ft³/s (13.5 m³/s) May 10, 1980, gage height, 5.13 ft (1.564 m), from rating curve extended above 180 ft³/s (5.10 m³/s) on basis of slope-area measurement at gage height 4.75 ft (1.448 m); minimum daily during periods of operation, 1.2 ft³/s (0.034 m³/s) Apr. 18, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 478 ft³/s (13.5 m³/s) May 10, gage height, 5.13 ft (1.564 m); minimum daily during period of operation, 2.4 ft³/s (0.068 m³/s) Mar. 1-3, 6-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68					2.4	2.6	52	85	57	61	89
2	63					2.4	2.6	39	80	53	64	91
3	71					2.4	2.6	37	80	61	58	91
4	76					2.8	2.6	42	84	66	69	106
5	75					3.9	2.6	51	84	63	69	113
6	72					2.4	2.6	51	90	58	71	108
7	80					2.4	2.6	47	84	63	77	106
8	69					2.4	2.6	46	87	66	82	91
9	78					2.4	2.6	47	73	63	85	112
10	89					2.4	2.6	237	64	52	85	119
11	89					2.4	2.6	110	71	38	80	113
12	86					2.4	2.6	65	78	40	80	116
13	78					2.5	2.6	42	72	36	81	114
14	80					2.5	2.6	41	65	35	85	104
15	80					2.5	2.6	51	70	38	85	93
16	86					2.5	2.6	62	94	41	93	96
17	84					2.5	2.6	82	98	51	110	116
18	84					2.5	3.7	85	75	60	114	107
19	85					2.5	8.2	84	96	66	107	110
20	91					2.5	9.7	58	113	77	104	114
21	101					2.5	9.7	60	124	73	100	106
22	98					2.5	10	70	129	62	98	98
23	104					2.5	9.0	73	130	51	101	93
24	113					2.5	9.0	67	119	52	103	91
25	107					2.5	9.7	65	97	46	85	97
26	108					2.5	15	84	97	50	77	103
27	118					2.5	15	60	84	72	82	103
28	113					2.5	39	46	67	75	73	103
29	116					2.5	60	53	60	64	71	101
30	113					2.5	44	65	60	50	86	96
31	110					2.6	---	73	---	57	86	---
TOTAL	2785					78.3	286.2	2045	2610	1736	2622	3100
MEAN	89.8					2.53	9.54	66.0	87.0	56.0	84.6	103
MAX	118					3.9	60	237	130	77	114	119
MIN	63					2.4	2.6	37	60	35	58	89
AC-FT	5520					155	568	4060	5180	3440	5200	6150

06207510 BIG SAND COULEE AT WYOMING-MONTANA STATE LINE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: May 1973 to current year (no winter records).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 37,200 mg/L May 8, 1975; minimum daily mean, 1 mg/L Mar. 27, 1977.
SEDIMENT LOADS: Maximum daily, 13,100 tons (11,900 tonnes) May 10, 1980; minimum daily, 0.01 ton (0.01 tonne) Mar. 3, 7, 1976, Mar. 27, Apr. 1, 1977.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 17,000 mg/L May 10; minimum daily mean, 4.0 mg/L Apr. 18.
SEDIMENT LOADS: Maximum daily, 13,100 tons (11,900 tonnes) May 10; minimum daily, 0.04 ton (0.04 tonne) Apr. 17, 18.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO
MAY											
06...	1400	57	225	7.3	16.5	59	4	17	4.1	24	1.4
29...	1530	59	260	8.0	12.5	67	0	19	4.7	25	1.3
JUL											
18...	1300	62	242	7.9	16.0	80	0	23	5.5	17	.8
AUG											
11...	1630	79	325	8.4	19.5	110	0	32	8.3	18	.7
SEP											
12...	1400	122	220	7.7	17.5	80	6	22	6.0	17	.8

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
MAY											
06...	1.4	55	48	1.2	.1	10	140	.19	21.5	.21	.17
29...	2.2	69	48	2.2	.2	10	154	.21	24.5	.26	.28
JUL											
18...	2.0	82	30	1.5	.4	5.3	135	.18	22.6	.31	.22
AUG											
11...	8.3	120	40	5.3	.3	8.5	194	.26	41.4	.68	.36
SEP											
12...	1.4	74	37	8.3	.2	7.3	145	.20	47.8	.28	.29

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)
MAY										
06...	.100	.120	.12	.15	.89	.99	1.2	5.3	.480	1.5
29...	.010	--	.01	--	.99	1.0	1.3	5.6	.380	1.2
JUL										
18...	.010	--	.01	--	.76	.77	1.1	4.8	.200	.61
AUG										
11...	.020	--	.02	--	.92	.94	1.6	7.2	.100	.31
SEP										
12...	.010	--	.01	--	1.4	1.4	1.7	7.4	1.300	4.0

DATE	TIME	TEMPERATURE, WATER (DEG C)	STREAM-FLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM
OCT												
02...	0900	10.0	67	66	12	--	--	--	--	--	--	--
JUL												
18...	1300	16.0	62	--	--	--	--	--	43	88	99	100
SEP												
12...	1400	17.5	122	959	316	74	97	100	--	--	--	--

YELLOWSTONE RIVER BASIN

06207510 BIG SAND COULEE AT WYOMING-MONTANA STATE LINE--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	68	22	4.0						
2	63	45	7.7						
3	71	29	5.6						
4	76	42	8.6						
5	75	47	9.5						
6	72	50	9.7						
7	80	52	11						
8	69	42	7.8						
9	78	84	18						
10	89	90	22						
11	89	51	12						
12	86	44	10						
13	78	38	8.0						
14	80	34	7.3						
15	80	33	7.1						
16	86	39	9.1						
17	84	65	15						
18	84	56	13						
19	85	55	13						
20	91	46	11						
21	101	40	11						
22	98	38	10						
23	104	40	11						
24	113	83	25						
25	107	47	14						
26	108	49	14						
27	118	45	14						
28	113	45	14						
29	116	32	10						
30	113	30	9.2						
31	110	21	6.2						
TOTAL	2785	---	347.8						
		JANUARY			FEBRUARY			MARCH	
1							2.4	---	---
2							2.4	---	---
3							2.4	---	---
4							2.8	---	---
5							3.9	55	.58
6							2.4	53	.34
7							2.4	49	.32
8							2.4	50	.32
9							2.4	25	.16
10							2.4	38	.25
11							2.4	37	.24
12							2.4	46	.30
13							2.5	43	.29
14							2.5	35	.24
15							2.5	47	.32
16							2.5	51	.34
17							2.5	46	.31
18							2.5	28	.19
19							2.5	18	.12
20							2.5	40	.27
21							2.5	37	.25
22							2.5	43	.29
23							2.5	48	.32
24							2.5	54	.36
25							2.5	52	.35
26							2.5	50	.34
27							2.5	34	.23
28							2.5	15	.10
29							2.5	40	.27
30							2.5	37	.25
31							2.6	40	.28
TOTAL							78.3	---	7.63

06207510 BIG SAND COULEE AT WYOMING-MONTANA STATE LINE--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	2.6	44	.31	52	793	111	85	114	26
2	2.6	25	.18	39	689	73	80	185	40
3	2.6	44	.31	37	224	22	80	105	23
4	2.6	20	.14	42	238	27	84	146	33
5	2.6	37	.26	51	703	97	84	125	28
6	2.6	26	.18	51	494	68	90	233	57
7	2.6	32	.22	47	221	28	84	185	42
8	2.6	44	.31	46	174	22	87	380	89
9	2.6	29	.20	47	162	21	73	158	31
10	2.6	32	.22	237	17000	13100	64	98	17
11	2.6	47	.33	110	6840	2030	71	107	21
12	2.6	19	.13	65	2560	449	78	100	21
13	2.6	18	.13	42	380	43	72	88	17
14	2.6	20	.14	41	272	30	65	110	19
15	2.6	30	.21	51	405	56	70	989	187
16	2.6	21	.15	62	1550	259	94	1560	396
17	2.6	5	.04	82	2760	611	98	2920	773
18	3.7	4	.04	85	751	172	75	550	111
19	8.2	19	.42	84	266	60	96	189	49
20	9.7	75	2.0	58	240	38	113	248	76
21	9.7	96	2.5	60	289	47	124	333	111
22	10	225	6.1	70	238	45	129	385	134
23	9.0	225	5.5	73	179	35	130	304	107
24	9.0	107	2.6	67	151	27	119	277	89
25	9.7	168	4.4	65	176	31	97	245	64
26	15	98	4.0	84	2810	637	97	156	41
27	15	117	4.7	60	207	34	84	62	14
28	39	680	72	46	277	34	67	43	7.8
29	60	530	86	53	349	50	60	108	17
30	44	940	112	65	357	63	60	144	23
31	---	---	---	73	128	25	---	---	---
TOTAL	286.2	---	305.72	2045	---	18345	2610	---	2663.8
		JULY			AUGUST			SEPTEMBER	
1	57	82	13	61	65	11	89	60	14
2	53	50	7.2	64	330	57	91	70	17
3	61	83	14	58	391	61	91	43	11
4	66	71	13	69	140	26	106	43	12
5	63	72	12	69	57	11	113	100	31
6	58	58	9.1	71	57	11	108	116	34
7	63	50	8.5	77	41	8.5	106	61	17
8	66	191	34	82	41	9.1	91	49	12
9	63	290	49	85	47	11	112	46	14
10	52	1520	213	85	79	18	119	55	18
11	38	1470	151	80	71	15	113	255	78
12	40	195	21	80	76	16	116	682	214
13	36	153	15	81	75	16	114	908	279
14	35	142	13	85	46	11	104	340	95
15	38	258	26	85	50	11	93	285	72
16	41	460	51	93	45	11	96	740	192
17	51	108	15	110	50	15	116	902	283
18	60	71	12	114	470	145	107	920	266
19	66	98	17	107	510	147	110	922	274
20	77	145	30	104	131	37	114	869	267
21	73	82	16	100	98	26	106	818	234
22	62	77	13	98	98	26	98	228	60
23	51	64	8.8	101	94	26	93	103	26
24	52	62	8.7	103	65	18	91	68	17
25	46	48	6.0	85	62	14	97	66	17
26	50	45	6.1	77	56	12	103	82	23
27	72	79	15	82	59	13	103	76	21
28	75	88	18	73	72	14	103	139	39
29	64	70	12	71	67	13	101	148	40
30	50	65	8.8	86	52	12	96	60	16
31	57	71	11	86	51	12	---	---	---
TOTAL	1736	---	847.2	2622	---	833.6	3100	---	2693
YEAR	15262.5		26043.75						

06218500 WIND RIVER NEAR DUBOIS, WY

LOCATION.--Lat 43°34'43", long 109°45'33", in NW¼NE¼ sec.25, T.42 N., R.108 W., Fremont County, Hydrologic Unit 10080001, on left bank 2.5 mi (4.0 km) upstream from Warm Springs Creek and 6.7 mi (10.8 km) northwest of Dubois.

DRAINAGE AREA.--232 mi^2 (601 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,188.71 ft (2,191.119 m), National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 2,300 acres (9.31 km^2).

AVERAGE DISCHARGE.--35 years, 178 ft^3/s (5.041 m^3/s), 129,000 acre-ft/yr (159 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,940 ft^3/s (54.9 m^3/s) June 8, 1972, gage height, 5.48 ft (1.670 m); maximum gage height, 5.66 ft (1.725 m) June 2, 1956; minimum daily discharge, 30 ft^3/s (0.85 m^3/s) Dec. 12, 1949, Jan. 5, 1950, Nov. 20, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 850 ft^3/s (24.1 m^3/s) and maximum (*):

Date	Time	Discharge		Gage height	
		(ft^3/s)	(m^3/s)	(ft)	(m)
May 22	0100	*961	27.2	4.41	1.344

Minimum daily discharge, 38 ft^3/s (1.08 m^3/s) Jan. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	54	49	46	50	53	57	335	346	530	139	107
2	69	60	52	47	56	54	58	333	354	455	134	98
3	68	60	54	47	56	54	56	316	391	458	128	93
4	68	56	56	46	56	54	56	399	378	420	128	90
5	68	54	56	46	54	54	55	456	423	380	120	87
6	69	54	56	47	54	56	58	506	437	364	116	86
7	67	52	54	46	52	56	56	509	365	338	114	86
8	67	52	54	47	50	56	56	570	355	313	113	88
9	67	52	53	50	49	56	57	509	448	354	122	90
10	67	50	51	56	49	55	58	430	544	319	113	92
11	67	50	50	60	48	58	61	346	659	296	108	95
12	67	50	49	64	49	58	60	299	723	269	105	97
13	66	50	48	66	50	60	61	260	735	257	104	99
14	66	49	49	66	52	56	70	247	680	245	105	100
15	68	49	50	65	52	57	80	253	635	245	114	100
16	74	48	50	61	52	58	83	260	514	219	113	100
17	71	47	50	58	52	56	94	299	531	213	108	98
18	71	46	49	53	51	56	112	280	648	205	103	105
19	76	46	49	50	51	56	127	314	668	198	103	154
20	82	46	49	49	51	58	160	407	731	184	110	123
21	73	46	48	52	51	58	176	642	738	177	104	120
22	75	46	48	54	52	59	166	810	697	171	98	115
23	69	46	48	54	50	60	195	861	686	166	97	108
24	76	46	47	54	50	60	198	749	620	162	92	106
25	73	45	47	50	50	62	220	608	575	162	90	101
26	74	44	49	45	52	64	222	474	592	155	110	97
27	67	43	48	41	52	68	224	397	560	146	107	95
28	68	42	48	38	52	70	225	358	444	140	109	93
29	66	41	47	39	53	71	243	350	431	139	98	91
30	57	44	45	41	---	66	272	343	490	172	94	91
31	59	---	45	44	---	61	---	343	---	154	101	---
TOTAL	2146	1468	1548	1582	1496	1820	3616	13263	16398	8006	3400	3005
MEAN	69.2	48.9	49.9	51.0	51.6	58.7	121	428	547	258	110	100
MAX	82	60	56	66	56	71	272	861	738	530	139	154
MIN	57	41	45	38	48	53	55	247	346	139	90	86
AC-FT	4260	2910	3070	3140	2970	3610	7170	26310	32530	15880	6740	5960

CAL YR 1979 TOTAL 53691 MEAN 147 MAX 961 MIN 41 AC-FT 106500
WTR YR 1980 TOTAL 57748 MEAN 158 MAX 861 MIN 38 AC-FT 114500

06218500 WIND RIVER NEAR DUBOIS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-48, 1950-51, 1953, 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	ACIDITY TOTAL HEATED (MG/L AS H)
OCT												
01...	0950	--	71	--	8.2	7.0	2	9.2	35	71	0	--
NOV												
08...	1100	52	--	--	7.7	.0	2	10.0	K3	83	0	--
DEC												
03...	1200	54	--	--	7.5	.0	--	9.8	K2	79	0	--
JAN												
10...	1030	56	--	--	7.7	.0	2	9.8	6	90	0	--
FEB												
26...	1045	52	--	--	7.8	1.0	--	11.3	100	84	0	--
APR												
08...	0950	56	--	--	8.0	.0	3	9.1	--	100	2	--
MAY												
06...	1245	--	484	--	7.6	7.0	230	9.2	K17	48	0	--
JUN												
10...	1015	--	544	--	7.5	5.5	--	9.8	60	35	0	.1
JUL												
02...	1300	--	446	110	7.6	12.5	8	8.0	53	42	0	--
AUG												
07...	1030	--	116	--	8.4	14.5	2	8.2	--	73	0	--
SEP												
04...	1245	--	89	--	7.8	9.0	--	8.0	89	80	0	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT												
01...	--	21	4.5	7.3	.4	2.0	92	0	75	9.1	2.6	.2
NOV												
08...	--	23	6.1	8.7	.4	2.0	110	0	90	11	1.8	.2
DEC												
03...	--	22	5.7	9.3	.5	3.0	110	0	90	9.9	2.6	.2
JAN												
10...	--	22	8.8	7.0	.3	2.3	120	0	98	9.9	1.8	.2
FEB												
26...	--	24	5.9	7.5	.4	2.5	110	0	90	15	.5	.2
APR												
08...	--	28	7.0	8.8	.4	1.8	120	0	98	12	1.1	.3
MAY												
06...	--	13	3.5	6.3	.4	1.3	68	0	56	3.3	.8	.1
JUN												
10...	5.0	10	2.4	4.3	.3	1.2	55	0	40	1.8	.7	.0
JUL												
02...	--	12	2.8	4.1	.3	1.5	61	0	49	3.0	1.0	.0
AUG												
07...	--	21	4.9	7.7	.4	1.3	100	3	87	9.1	1.8	.1
SEP												
04...	--	25	4.3	8.0	.4	1.3	100	0	82	11	1.2	.1

06218500 WIND RIVER NEAR DUBOIS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)
OCT 01...	23	--	116	.16	21.9	--	.24	--	--	--	--
NOV 08...	11	--	118	.16	16.6	--	.10	--	--	--	--
DEC 03...	25	--	136	.19	19.8	--	.00	--	--	--	--
JAN 10...	26	--	135	.18	20.4	--	.01	--	--	--	--
FEB 26...	24	--	136	.19	19.1	--	.04	--	--	--	--
APR 08...	16	--	130	.18	19.7	--	.00	--	--	--	--
MAY 06...	16	--	78	.11	102	--	.08	--	--	--	--
JUN 10...	18	78	66	.09	96.9	.03	.03	.280	.030	.34	.04
JUL 02...	20	95	74	.10	89.1	.00	.00	.010	.000	.01	.00
AUG 07...	25	--	123	.17	38.5	--	.02	--	--	--	--
SEP 04...	21	--	120	.16	28.8	--	.00	--	--	--	--

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
OCT 01...	--	--	--	--	--	--	--	--	.080	--	--
NOV 08...	--	--	--	--	--	--	--	--	.070	--	--
DEC 03...	--	--	--	--	--	--	--	--	.080	--	--
JAN 10...	--	--	--	--	--	--	--	--	.120	--	--
FEB 26...	--	--	--	--	--	--	--	--	.070	--	--
APR 08...	--	--	--	--	--	--	--	--	.060	--	--
MAY 06...	--	--	--	--	--	--	--	--	.150	--	--
JUN 10...	.48	.27	.76	.46	.30	.79	3.5	.33	.230	.71	.050
JUL 02...	1.1	.47	1.1	.63	.47	1.1	4.9	.47	.170	.52	.070
AUG 07...	--	--	--	--	--	--	--	--	.080	--	--
SEP 04...	--	--	--	--	--	--	--	--	.050	--	--

DATE	TIME	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, SUS-PENDED RECOV. (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, TOTAL (UG/L AS SB)	ANTI-MONY, SUS-PENDED TOTAL (UG/L AS SB)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)
JUN 10...	1015	100	30	70	0	0	0	1	0	1	100	70
JUL 02...	1300	960	940	20	--	--	--	1	0	1	100	70

06218500 WIND RIVER NEAR DUBOIS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	BORON, SUSPENDED RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)
JUN 10...	30	<1	40	0	40	1	0	1	0	0	0	5
JUL 02...	30	<1	20	10	10	0	0	2	10	10	0	1

DATE	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)
JUN 10...	<3	14	0	18	4400	4300	60	14	14	0	10
JUL 02...	<3	10	--	<10	1200	1100	57	14	0	<10	0

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)
JUN 10...	<4	140	130	7	.0	.0	.0	<10	24	23	1
JUL 02...	<4	50	50	5	.0	.0	.0	<10	9	5	4

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
JUN 10...	0	0	0	1	1	0	62	<6.0	150	--	<3
JUL 02...	0	0	0	0	0	0	68	<6.0	50	40	9

DATE	TIME	PCB TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)
NOV 08...	1100	--	0	--	.0	--	.0	--	0	--
MAY 06...	1245	.00	0	.0	.0	.00	.0	.0	0	.00

DATE	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 08...	.0	--	.0	--	.0	--	--	.0	--	.0
MAY 06...	.1	.00	.2	.00	.0	.00	.00	.0	.00	.0

06218500 WIND RIVER NEAR DUBOIS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)
NOV 08...	--	.0	--	--	.0	--	.0	--	.0	--
MAY 06...	.00	.0	.00	.00	.0	.00	.0	.01	.0	.00

DATE	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL (UG/L)
NOV 08...	--	.0	--	--	--	.0	--	--	.00	--
MAY 06...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0

DATE	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 08...	0	--	.00	0	.00	.0	.00	0	.00	.0
MAY 06...	0	.00	.00	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
NOV 08...	.00	.0	.00	.0
MAY 06...	--	--	--	--

DATE	TIME	TEMPERATURE, WATER (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JUN 10...	1015	5.5	544	314	461	65	80	95	100	--
JUL 02...	1300	12.5	446	76	92	--	--	--	--	73

06220500 EAST FORK WIND RIVER NEAR DUBOIS, WY

LOCATION.--Lat 43°27'16", long 109°27'57", in SE¼SW¼NW¼ sec.34, T.6 N., R.6 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 1.0 mi (1.6 km) upstream from mouth and 9.9 mi (15.9 km) southeast of Dubois.

DRAINAGE AREA.--427 mi^2 (1,106 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1950 to September 1957, October 1975 to current year. Prior to October 1953, published as North Fork Wind River near Dubois.

GAGE.--Water-stage recorder. Altitude of gage is 6,440 ft (1,963 m), from topographic map. Prior to Sept. 30, 1957, at site 500 ft (152 m) upstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 2,000 acres (8.09 hm^2) above station.

AVERAGE DISCHARGE.--12 years, 270 ft^3/s (7.646 m^3/s), 195,600 acre-ft/yr (241 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,700 ft^3/s (161 m^3/s) June 26, 1954, gage height, 7.72 ft (2.353 m), from rating curve extended above 3,400 ft^3/s (96.3 m^3/s); maximum gage height, 9.27 ft (2.825 m) June 30, 1957; minimum daily discharge, 18 ft^3/s (0.51 m^3/s) Jan. 9, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,620 ft^3/s (131 m^3/s) May 22, gage height, 7.01 ft (2.137 m), from floodmarks, from rating curve extended above 2,600 ft^3/s (73.6 m^3/s); minimum daily, 31 ft^3/s (0.88 m^3/s) Jan. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	57	48	33	43	62	60	524	126	1210	150	109
2	71	43	53	33	47	61	58	433	148	890	140	93
3	75	43	54	33	52	60	58	482	148	943	130	73
4	75	42	54	32	54	59	56	660	131	736	120	72
5	71	41	52	32	55	60	56	672	258	665	115	66
6	75	42	51	33	56	60	56	672	330	643	110	59
7	75	43	49	32	56	60	56	660	281	512	120	62
8	75	43	49	33	55	60	56	568	273	431	140	70
9	80	43	48	33	55	60	58	503	826	502	170	96
10	80	42	47	34	56	60	61	423	1710	461	130	80
11	80	40	46	36	56	61	64	385	2530	375	100	255
12	80	39	45	39	55	61	80	341	2310	314	100	213
13	84	39	44	42	55	61	98	283	1650	289	103	399
14	84	38	42	43	55	60	150	268	1580	251	98	368
15	84	38	41	43	56	58	204	268	1150	237	133	286
16	94	38	41	43	56	57	192	276	632	183	171	215
17	94	37	40	42	57	59	217	376	1170	230	164	212
18	94	37	39	42	58	60	306	324	1580	216	121	168
19	94	37	39	42	58	60	423	359	1280	216	113	299
20	107	37	39	42	58	63	589	576	1900	177	146	394
21	94	36	39	43	59	64	696	2500	1870	172	113	255
22	84	36	38	42	60	66	589	2700	1460	196	94	234
23	94	36	38	41	61	66	503	1230	1580	202	77	190
24	98	36	37	40	62	69	503	840	1150	209	74	140
25	107	35	37	39	62	70	589	554	1130	216	64	120
26	117	35	37	35	63	70	557	298	1260	154	82	110
27	107	36	38	32	63	70	492	196	943	148	80	100
28	107	36	37	31	62	70	492	154	533	142	104	98
29	107	36	36	33	62	68	535	160	643	148	77	94
30	84	41	34	36	---	66	578	131	1060	172	66	94
31	75	---	33	39	---	64	---	126	---	177	84	---
TOTAL	2717	1182	1325	1153	1647	1945	8432	17942	31642	11417	3489	5024
MEAN	87.6	39.4	42.7	37.2	56.8	62.7	281	579	1055	368	113	167
MAX	117	57	54	43	63	70	696	2700	2530	1210	171	399
MIN	71	35	33	31	43	57	56	126	126	142	64	59
AC-FT	5390	2340	2630	2290	3270	3860	16720	35590	62760	22650	6920	9970

CAL YR 1979 TOTAL 69066 MEAN 189 MAX 1880 MIN 33 AC-FT 137000
WTR YR 1980 TOTAL 87915 MEAN 240 MAX 2700 MIN 31 AC-FT 174400

06220500 EAST FORK WIND RIVER NEAR DUBOIS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 01...	1145	--	66	190	8.5	10.0	4	.71
NOV 08...	1310	43	--	200	8.3	.0	3	.35
DEC 03...	0950	54	--	200	8.4	.0	12	1.7
JAN 10...	1330	34	--	340	8.6	.0	12	1.1
FEB 26...	1225	63	--	500	8.3	.0	58	9.9
APR 08...	1220	56	--	240	8.2	1.0	30	4.5
MAY 06...	1015	--	610	135	8.1	6.0	177	292
23...	1130	--	1840	120	7.4	6.5	1560	7750
JUN 10...	1345	--	1130	95	7.9	11.5	430	1310
JUL 02...	1130	--	813	100	7.7	11.0	62	136
AUG 07...	0805	120	--	152	8.2	13.5	5	1.6
SEP 04...	1100	--	74	30	8.0	10.5	6	1.2

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
MAY 23...	1130	6.5	1840	13	25	48	72	90	98	100
JUN 10...	1345	11.5	1130	--	--	51	70	89	99	100

06222700 CROW CREEK NEAR TIPPERARY, WY

LOCATION.--Lat 43°34'37", long 109°15'42", in sec.20, T.7 N., R.4 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank just above Crow Creek Canyon, 2.0 mi (3.2 km) downsteam from Trail *Creek, 5.0 mi (8.0 km) north of Tipperary, and 19 mi (31 km) north of Crowheart.*

DRAINAGE AREA.--30.2 mi^2 (78.2 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1962 to current year.

REVISED RECORDS.--WDR-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,600 ft (2,621 m), from topographic map.

REMARKS.--Records good except those for winter period and those for periods of no gage-height record, Jan. 26 to Feb. 8, Mar. 22 to Apr. 23, which are poor. No diversion above station.

AVERAGE DISCHARGE.--18 years, 22.0 ft^3/s (0.623 m^3/s), 15,940 acre-ft/yr (19.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 568 ft^3/s (16.1 m^3/s) June 16, 1965, gage height, 5.20 ft (1.585 m), from rating curve extended above 220 ft^3/s (6.23 m^3/s) on basis of velocity-area study; maximum gage height, 5.64 ft (1.719 m) Jan. 14, 1975 (backwater from ice); minimum daily discharge, 0.48 ft^3/s (0.014 m^3/s) Jan. 9, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft^3/s (5.10 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 16	1230			*a5.11	1.558
May 21	2230	324	9.18	4.85	1.478
June 11	2130	*375	10.6	4.80	1.463
June 20	2200	350	9.91	4.72	1.439

a - backwater from ice.

Minimum daily discharge, 1.9 ft^3/s (0.054 m^3/s) Jan. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	3.7	3.0	2.4	2.2	2.6	3.4	32	44	87	11	6.5
2	4.9	3.8	3.0	2.4	2.3	2.5	3.4	22	45	64	11	5.6
3	4.9	3.8	3.1	2.4	2.3	2.5	3.4	24	46	64	10	5.0
4	4.7	3.7	3.1	2.4	2.3	2.5	3.5	42	51	57	10	4.9
5	4.7	3.5	3.1	2.5	2.3	2.4	3.7	38	64	46	8.3	4.8
6	5.0	3.5	3.1	2.5	2.3	2.4	3.7	39	63	45	6.5	4.9
7	4.7	3.5	3.0	2.4	2.3	2.4	3.7	44	49	37	6.6	5.2
8	4.7	3.5	3.0	2.3	2.3	2.4	3.8	47	63	41	8.6	5.1
9	4.7	3.5	2.9	2.3	2.3	2.4	4.2	41	130	41	11	5.0
10	5.0	3.5	2.7	2.3	2.3	2.4	4.1	35	267	39	8.0	4.7
11	4.7	3.5	2.6	2.4	2.4	2.5	3.9	28	233	36	7.5	12
12	4.7	3.5	2.5	2.5	2.5	2.5	3.9	22	206	31	7.6	7.5
13	4.7	3.5	2.5	2.5	2.5	2.6	4.1	21	177	30	7.9	7.7
14	4.5	3.4	2.5	2.5	2.4	2.6	4.5	19	177	28	8.3	5.0
15	4.7	3.4	2.5	2.5	2.4	2.6	5.0	21	157	26	9.6	5.1
16	5.0	3.4	2.5	2.4	2.4	2.6	5.6	22	128	24	12	6.1
17	5.0	3.4	2.6	2.4	2.5	2.7	6.0	30	166	24	11	5.5
18	4.5	3.4	2.6	2.3	2.6	2.8	6.6	28	206	22	9.1	5.3
19	4.7	3.4	2.5	2.2	2.6	2.8	8.4	33	188	24	9.5	7.2
20	3.9	3.3	2.5	2.2	2.7	2.8	12	66	203	20	9.4	5.3
21	3.9	3.3	2.4	2.2	2.8	2.8	19	203	248	20	8.7	4.2
22	4.2	3.3	2.3	2.2	2.8	2.9	17	210	253	20	8.1	3.9
23	4.2	3.2	2.3	2.2	2.8	3.0	26	165	200	20	7.3	3.9
24	3.7	3.2	2.4	2.1	2.7	3.0	23	108	184	17	6.9	3.9
25	3.9	3.1	2.4	2.1	2.6	3.0	27	85	181	18	6.3	3.7
26	3.9	3.0	2.4	2.0	2.6	3.1	31	65	180	15	6.2	3.7
27	4.0	2.9	2.4	2.0	2.7	3.2	25	56	134	14	6.4	3.7
28	3.9	2.8	2.4	1.9	2.7	3.3	27	44	108	13	7.2	3.7
29	3.9	2.8	2.3	2.0	2.7	3.3	31	49	101	12	6.2	3.5
30	3.7	2.9	2.3	2.0	---	3.2	36	43	95	13	5.9	3.5
31	3.6	---	2.4	2.1	---	3.3	---	50	---	13	6.8	---
TOTAL	137.5	100.7	81.3	70.6	72.3	85.1	358.9	1732	4347	961	258.9	156.1
MEAN	4.44	3.36	2.62	2.28	2.49	2.75	12.0	55.9	145	31.0	8.35	5.20
MAX	5.0	3.8	3.1	2.5	2.8	3.3	36	210	267	87	12	12
MIN	3.6	2.8	2.3	1.9	2.2	2.4	3.4	19	44	12	5.9	3.5
AC-FT	273	200	161	140	143	169	712	3440	8620	1910	514	310

CAL YR 1979 TOTAL 6374.5 MEAN 17.5 MAX 165 MIN 2.3 AC-FT 12640
WTR YR 1980 TOTAL 8361.4 MEAN 22.8 MAX 267 MIN 1.9 AC-FT 16580

06222700 CROW CREEK NEAR TIPPERARY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)
OCT 19...	1220	--	4.5	76	7.6	3.0
NOV 15...	1045	3.4	--	175	8.2	.0
DEC 12...	0950	2.5	--	--	--	.0
FEB 07...	1430	2.3	--	170	7.0	.0
MAR 20...	0840	2.8	--	80	7.1	.0
APR 23...	1410	26	--	115	7.3	4.0
MAY 27...	1350	--	60	46	--	8.0
JUN 13...	1650	--	159	55	7.3	12.5
JUL 02...	0910	--	56	54	7.2	7.0
AUG 07...	1725	--	6.6	90	7.8	19.0
SEP 04...	0930	--	5.4	100	7.5	5.5

06224000 BULL LAKE CREEK ABOVE BULL LAKE, WY

LOCATION.--Lat 43°10'37", long 109°12'08", in NE¼SW¼ sec.2, T.2 N., R.4 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 1.2 mi (1.9 km) upstream from high-water line of Bull Lake and 9.0 mi (14.5 km) south of Crowheart.

DRAINAGE AREA.--187 mi^2 (484 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1941 to December 1953, October 1966 to current year. Monthly discharge only for some periods, published in WSP 1309. Prior to October 1950, published as "above Bull Lake Reservoir."

GAGE.--Water-stage recorder. Altitude of gage is 5,874 ft (1,790 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, Jan. 7 to Apr. 7, which are poor. No diversions above station.

AVERAGE DISCHARGE.--26 years (water years 1942-53, 1967-80), 299 ft^3/s (8.468 m^3/s), 216,600 acre-ft/yr (267 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,420 ft^3/s (96.9 m^3/s) June 18, 1971, gage height, 7.05 ft (2.149 m); minimum, 5.2 ft^3/s (0.15 m^3/s) Jan. 28, 1970, gage height, 1.44 ft (0.439 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft^3/s (42.5 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 24	0030	1,990	56.4	5.61	1.710	June 21	0800	2,250	63.7	5.90	1.798
June 12	0730	2,250	63.7	5.90	1.798	July 2	0700	*2,310	65.4	5.96	1.817

Minimum daily discharge, 13 ft^3/s (0.37 m^3/s) Jan. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	70	24	17	19	20	20	514	545	2120	590	166
2	85	60	26	17	21	20	20	465	573	2210	569	150
3	81	67	28	16	21	20	22	437	578	1970	535	135
4	82	64	25	16	21	20	27	487	565	1960	470	123
5	83	59	24	16	20	20	28	508	693	1550	393	117
6	77	53	24	17	20	19	28	512	668	1360	339	119
7	71	43	23	17	20	19	27	538	588	1230	323	133
8	72	42	23	16	20	20	28	584	627	1110	336	149
9	75	40	22	16	20	20	31	641	893	1140	349	162
10	81	34	22	16	20	20	28	592	1310	1220	346	180
11	80	43	17	15	19	20	28	519	1770	1270	330	188
12	82	31	15	16	19	20	28	448	2130	1180	311	190
13	86	35	17	16	19	20	27	372	2000	1110	297	191
14	89	35	18	18	19	20	28	349	1830	1040	293	194
15	88	36	19	18	19	20	31	341	1650	933	305	187
16	76	34	16	18	19	20	32	315	1260	832	322	173
17	76	36	18	17	19	20	32	439	1200	777	320	157
18	75	33	18	16	20	19	36	369	1530	793	289	142
19	83	31	17	15	21	19	48	359	1810	823	256	138
20	94	32	17	15	21	19	62	426	2040	935	237	134
21	94	30	16	16	21	19	78	719	2130	845	212	132
22	90	27	16	16	21	19	82	1150	2060	760	191	127
23	91	31	16	16	21	19	179	1760	2060	712	180	120
24	90	29	16	15	22	19	148	1750	1850	696	182	113
25	89	30	17	14	22	19	141	1230	1720	677	186	106
26	86	26	17	14	22	19	164	851	1750	636	198	100
27	82	21	15	14	22	20	168	666	1760	606	210	93
28	81	20	18	13	21	21	184	547	1440	573	215	88
29	81	21	14	14	20	21	245	517	1160	539	204	84
30	79	23	15	15	---	21	389	503	1350	543	190	80
31	79	---	16	17	---	20	---	539	---	596	179	---
TOTAL	2580	1136	589	492	589	612	2389	19447	41540	32746	9357	4171
MEAN	83.2	37.9	19.0	15.9	20.3	19.7	79.6	627	1385	1056	302	139
MAX	102	70	28	18	22	21	389	1760	2130	2210	590	194
MIN	71	20	14	13	19	19	20	315	545	539	179	80
AC-FT	5120	2250	1170	976	1170	1210	4740	38570	82390	64950	18560	8270

CAL YR 1979	TOTAL	87177	MEAN	239	MAX	1830	MIN	14	AC-FT	172900
WTR YR 1980	TOTAL	115648	MEAN	316	MAX	2210	MIN	13	AC-FT	229400

06224000 BULL LAKE CREEK ABOVE BULL LAKE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)
OCT						
02...	1045	--	87	50	7.0	10.5
NOV						
07...	1135	--	43	48	7.1	4.0
DEC						
12...	0830	--	12	--	--	.0
FEB						
07...	1325	20	--	125	6.9	.0
MAR						
19...	1055	19	--	140	6.8	1.5
APR						
23...	1245	--	188	82	--	5.0
JUN						
09...	1115	--	908	55	7.0	9.0
24...	1040	--	1940	54	6.2	7.5
JUL						
22...	1100	--	762	58	6.8	16.0
AUG						
28...	1135	--	218	64	6.9	12.0

06225000 BULL LAKE CREEK NEAR LENORE, WY

LOCATION.--Lat 43°14'33", long 109°01'20", in NE¼NW¼ sec.17, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 700 ft (213 m) upstream from mouth, 2.8 mi (4.5 km) downstream from Bull Lake, and 8.5 mi (13.1 km) southeast of Lenore.

DRAINAGE AREA.--213 mi^2 (552 km^2), of which 12 mi^2 (31 km^2) is probably noncontributing.

PERIOD OF RECORD.--May 1918 to current year.

REVISED RECORDS.--WSP 1309: 1921(M, date only), 1925(M), 1926(M), 1930(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,654 ft (1,723 m), from topographic map. May 18, 1918, to Sept. 30, 1922, at site 10 ft (3 m) upstream at datum 0.86 ft (0.262 m) higher; Oct. 1, 1922, to Oct. 3, 1934, at present site at datum 2.00 ft (0.610 m) lower.

REMARKS.--Records good except those for winter period, which are fair. Flow completely regulated by Bull Lake 2.8 mi (4.5 km) upstream since April 1938. (See station 06224500.) Diversions above station for irrigation of about 730 acres (2.95 km^2) below.

AVERAGE DISCHARGE.--62 years, 279 ft^3/s (7.901 m^3/s), 202,100 acre-ft/yr (249 hm^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,200 ft^3/s (176 m^3/s) Aug. 8, 1951, gage height, 7.09 ft (2.161 m), result of automatic spillway gates releasing on Bull Lake Dam, from rating curve extended above 2,000 ft^3/s (56.6 m^3/s) on basis of slope-area measurement of peak flow; minimum prior to construction of Bull Lake Dam not determined, probably occurred during period of ice effect in March 1933; no flow Feb. 28 to Apr. 7, 1937 (result of regulation).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,450 ft^3/s (69.4 m^3/s) July 3, gage height, 4.82 ft (1.469 m); minimum daily, 4.9 ft^3/s (0.139 m^3/s) Apr. 16-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	381	11	17	17	20	14	12	58	108	890	1060	718
2	120	16	17	17	20	14	13	55	106	1340	989	673
3	89	18	17	17	20	14	12	44	108	2400	958	615
4	27	19	17	17	21	14	13	50	108	2160	1040	594
5	51	19	17	17	21	16	13	49	109	2140	1140	632
6	30	19	17	17	21	15	13	47	114	1710	1140	686
7	23	19	17	17	19	15	13	39	116	1210	1140	688
8	21	19	18	17	19	15	12	36	116	917	1130	713
9	17	16	16	17	19	15	12	36	118	904	1130	867
10	17	13	16	17	19	14	12	37	120	774	1120	873
11	16	12	17	17	18	15	12	30	120	727	1120	790
12	14	13	17	17	18	15	13	30	119	771	1110	699
13	14	13	17	17	18	14	13	29	123	920	1050	636
14	14	14	17	17	14	15	12	28	124	970	948	579
15	15	14	17	17	14	15	5.1	28	126	1030	741	573
16	16	14	17	17	14	15	4.9	30	186	912	518	573
17	17	14	17	17	14	18	4.9	31	430	755	363	598
18	17	14	17	17	14	15	5.0	28	576	713	344	636
19	17	14	17	23	13	15	5.0	28	931	709	551	641
20	17	14	17	20	14	14	5.1	27	1630	708	580	627
21	18	15	17	20	13	15	55	53	2060	706	614	599
22	18	16	17	20	14	15	53	105	2070	712	610	570
23	16	17	17	20	14	15	41	107	2090	744	636	527
24	14	17	17	20	14	15	41	107	2070	988	668	576
25	9.1	17	17	20	13	17	57	110	1530	1020	700	633
26	7.1	17	17	20	12	15	58	108	1470	949	701	760
27	8.1	17	17	20	14	15	58	109	1500	1080	697	834
28	9.5	17	17	20	14	15	58	108	1500	1280	696	828
29	9.8	17	17	20	14	15	57	109	1490	1330	688	737
30	9.8	17	17	20	---	15	57	110	1130	1290	706	508
31	10	---	17	20	---	13	---	109	---	1140	721	---
TOTAL	1062.4	472	526	569	472	462	740.0	1875	22398	33899	25609	19983
MEAN	34.3	15.7	17.0	18.4	16.3	14.9	24.7	60.5	747	1094	826	666
MAX	381	19	18	23	21	18	58	110	2090	2400	1140	873
MIN	7.1	11	16	17	12	13	4.9	27	106	706	344	508
AC-FT	2110	936	1040	1130	936	916	1470	3720	44430	67240	50800	39640

CAL YR 1979 TOTAL 94198.4 MEAN 258 MAX 1520 MIN 7.1 AC-FT 186800
WTR YR 1980 TOTAL 108067.4 MEAN 295 MAX 2400 MIN 4.9 AC-FT 214400

06225500 WIND RIVER NEAR CROWHEART, WY

LOCATION.--Lat 43°14'33", long 109°00'35", in NW¼NW¼ sec.16, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank 0.9 mi (1.4 km) downstream from Bull Lake Creek and 9.0 mi (14.5 km) southeast of Crowheart.

DRAINAGE AREA.--1,891 mi^2 (4,898 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 1116: 1946-47. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,635 ft (1,718 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Some regulation by Bull Lake on Bull Lake Creek. (See station 06224500.) Diversions for irrigation of about 25,000 acres (101 km^2) above station.

AVERAGE DISCHARGE.--35 years, 1,235 ft^3/s (34.98 m^3/s), 894,800 acre-ft/yr (1,100 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft^3/s (368 m^3/s) June 16, 1963, gage height, 9.16 ft (2.792 m); minimum daily, 190 ft^3/s (5.38 m^3/s) Feb. 6, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1927, reached a discharge of 13,000 ft^3/s (368 m^3/s); discharge measurement made by Water and Power Resources Service at site 1.0 mi (1.6 km) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,890 ft^3/s (223 m^3/s) June 21, gage height, 8.58 ft (2.615 m); minimum daily, 196 ft^3/s (5.55 m^3/s) Mar. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	753	380	315	300	310	290	247	1560	1790	4570	2310	1260
2	646	359	350	300	310	290	254	1570	1820	5280	2190	1210
3	614	398	360	290	320	290	239	1530	1860	6170	2120	1100
4	543	415	360	290	320	290	242	1830	1820	5840	2130	1050
5	540	446	389	290	310	280	285	2110	2080	5340	2100	1070
6	505	437	389	300	300	265	306	2120	2290	4640	2000	1150
7	502	417	379	310	300	260	263	2240	2180	3890	1930	1140
8	494	409	360	310	300	251	233	2310	1950	3260	1880	1170
9	493	392	336	300	300	240	230	2160	2460	3320	1930	1380
10	493	402	328	300	300	243	244	1930	3490	3180	1970	1390
11	485	387	291	290	290	239	240	1750	4590	3060	1860	1350
12	478	387	233	300	290	222	234	1500	5210	3000	1790	1340
13	487	375	230	310	290	208	243	1240	5080	3060	1700	1420
14	487	372	240	310	290	225	239	1120	4720	3030	1580	1410
15	491	372	250	320	290	243	286	1090	4350	2980	1420	1320
16	497	372	240	310	290	218	322	1110	3470	2750	1260	1240
17	501	372	250	300	290	196	322	1540	3590	2420	1070	1250
18	490	372	260	290	300	202	367	1360	4440	2300	972	1240
19	494	372	270	300	310	223	478	1350	5010	2270	1120	1360
20	514	366	260	310	310	235	625	1610	6260	2370	1140	1430
21	498	353	270	320	310	235	904	2950	7050	2320	1160	1260
22	471	321	280	320	310	236	922	4520	6590	2170	1120	1200
23	467	327	280	310	320	233	914	5340	6650	2150	1120	1110
24	462	353	260	300	320	217	889	4810	6120	2390	1120	1140
25	469	353	270	280	320	251	983	3780	5230	2420	1150	1200
26	459	366	270	270	320	239	1090	2860	5180	2280	1170	1340
27	462	353	270	260	310	220	1050	2330	5120	2310	1190	1410
28	442	297	270	250	305	231	998	1990	4360	2460	1220	1380
29	446	309	270	260	300	239	1150	1880	4070	2460	1210	1250
30	432	297	280	280	---	240	1310	1790	4000	2430	1210	979
31	394	---	290	300	---	265	---	1740	---	2370	1240	---
TOTAL	15509	11131	9100	9180	8835	7516	16109	67020	122830	98490	47382	37549
MEAN	500	371	294	296	305	242	537	2162	4094	3177	1528	1252
MAX	753	446	389	320	320	290	1310	5340	7050	6170	2310	1430
MIN	394	297	230	250	290	196	230	1090	1790	2150	972	979
AC-FT	30760	22080	18050	18210	17520	14910	31950	132900	243600	195400	93980	74480

CAL YR 1979 TOTAL 376720 MEAN 1032 MAX 4630 MIN 230 AC-FT 747200
WTR YR 1980 TOTAL 450651 MEAN 1231 MAX 7050 MIN 196 AC-FT 893900

06225500 WIND RIVER NEAR CROWHEART, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
OCT							
03...	1040	11.0	--	623	10	17	--
NOV							
09...	1045	5.0	--	379	6	6.1	--
DEC							
04...	1210	.0	360	--	50	49	--
JAN							
18...	1100	.0	290	--	11	8.6	--
MAR							
06...	1000	.0	265	--	26	19	--
APR							
04...	0920	4.0	--	240	42	27	--
MAY							
07...	0930	10.0	--	2410	893	5810	15
08...	1120	12.0	--	2560	437	3020	20
14...	0930	8.0	--	1150	159	494	--
21...	0930	12.0	--	3440	6110	56750	15
JUN							
03...	1400	11.0	--	1950	166	874	--
04...	1530	14.5	--	1900	127	652	--
11...	1345	13.0	--	5080	1240	17010	16
18...	1345	14.0	--	5010	792	10710	15
25...	1345	13.0	--	5410	328	4790	--
JUL							
09...	0930	14.0	--	3520	135	1280	--
16...	0930	13.0	--	2820	25	190	--
23...	0930	15.0	--	2090	15	85	--
30...	0930	14.0	--	2450	14	93	--
AUG							
06...	1045	16.5	--	2010	9	49	--
13...	0930	15.0	--	1770	9	43	--
20...	0930	13.0	--	1150	14	43	--
27...	0930	15.0	--	1190	8	26	--
SEP							
03...	1120	14.0	--	1120	9	27	--
10...	0930	15.0	--	1460	9	35	--
17...	0930	12.0	--	1210	30	98	--

06225500 WIND RIVER NEAR CROWHEART, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
03...	--	--	--	--	--	--	87
NOV							
09...	--	--	--	--	--	--	80
DEC							
04...	--	--	--	--	--	--	91
JAN							
18...	--	--	--	--	--	--	--
MAR							
06...	--	--	--	--	--	--	--
APR							
04...	--	--	--	--	--	--	95
MAY							
07...	28	64	84	98	100	--	--
08...	43	93	100	--	--	--	--
14...	--	--	--	--	--	--	63
21...	33	79	93	99	100	--	--
JUN							
03...	--	--	--	--	--	--	30
04...	--	--	--	--	--	--	39
11...	33	60	79	95	99	100	--
18...	31	56	73	94	100	--	--
25...	--	--	--	--	--	--	41
JUL							
09...	--	--	--	--	--	--	31
16...	--	--	--	--	--	--	52
23...	--	--	--	--	--	--	64
30...	--	--	--	--	--	--	68
AUG							
06...	--	--	--	--	--	--	54
13...	--	--	--	--	--	--	79
20...	--	--	--	--	--	--	85
27...	--	--	--	--	--	--	81
SEP							
03...	--	--	--	--	--	--	93
10...	--	--	--	--	--	--	77
17...	--	--	--	--	--	--	95

06226000 WYOMING CANAL NEAR LENORE, WY

LOCATION.--Lat 43°13'45", long 108°53'40", in SE¼SE¼ sec.17, T.3 N., R.1 W., Fremont County, Hydrologic Unit 10080001, on right bank 3.3 mi (5.3 km) downstream from diversion dam on Wind River and 15 mi (24 km) southeast of Lenore.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to September 1945 (irrigation season only), May 1949 to current year (no winter record 1976, 1977, and 1978). Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 5,560.85 ft (1,694.947 m), National Geodetic Vertical Datum of 1929. May 1, 1941, to Sept. 30, 1945, nonrecording gage at site 3.2 mi (5.1 km) upstream at different datum. May 3, 1949, to Oct. 2, 1952, and Apr. 12 to May 15, 1971, water-stage recorder at site 3.0 mi (4.8 km) upstream at different datum.

REMARKS.--Records good. Flow used for irrigation on Riverton project.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,830 ft^3/s (51.8 m^3/s) July 17, 19-21, 26-31, 1976; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	.00	.00	.00	.00	.00	205	679	1070	1480	1570	885
2	.00	.00	.00	.00	.00	.00	210	637	1080	1490	1540	864
3	.00	.00	.00	.00	.00	.00	210	572	1160	1470	1520	763
4	.00	.00	.00	.00	.00	.00	220	509	1270	1430	1510	740
5	.00	.00	.00	.00	.00	.00	225	484	1370	1420	1510	759
6	.00	.00	.00	.00	.00	.00	241	517	1480	1420	1460	809
7	.00	.00	.00	.00	.00	.00	245	581	1480	1460	1370	802
8	.00	.00	.00	.00	.00	.00	213	667	1460	1550	1330	818
9	.00	.00	.00	.00	.00	.00	198	779	1340	1610	1330	991
10	.00	.00	.00	.00	.00	.00	205	812	822	1640	1330	1040
11	.00	.00	.00	.00	.00	.00	207	714	1230	1630	1330	985
12	.00	.00	.00	.00	.00	.00	206	579	1740	1630	1300	979
13	.00	.00	.00	.00	.00	.00	172	441	1730	1640	1220	909
14	.00	.00	.00	.00	.00	.00	150	561	1720	1630	1130	913
15	.00	.00	.00	.00	.00	62	222	691	1730	1620	985	919
16	.00	.00	.00	.00	.00	182	265	692	1720	1620	809	903
17	.00	.00	.00	.00	.00	182	275	523	1770	1610	604	912
18	.00	.00	.00	.00	.00	182	288	497	1750	1610	625	924
19	.00	.00	.00	.00	.00	172	361	611	1750	1610	827	922
20	.00	.00	.00	.00	.00	147	502	742	1730	1610	836	979
21	.00	.00	.00	.00	.00	188	703	671	1700	1610	768	948
22	.00	.00	.00	.00	.00	194	825	536	1690	1600	746	916
23	.00	.00	.00	.00	.00	187	872	571	1650	1600	723	871
24	.00	.00	.00	.00	.00	191	891	679	1550	1570	736	896
25	.00	.00	.00	.00	.00	200	887	703	1350	1550	752	956
26	.00	.00	.00	.00	.00	205	891	804	1270	1550	763	1070
27	.00	.00	.00	.00	.00	207	903	957	1430	1530	790	1080
28	.00	.00	.00	.00	.00	211	905	1040	1500	1580	819	1080
29	.00	.00	.00	.00	.00	212	814	1040	1480	1620	832	1080
30	.00	.00	.00	.00	---	211	679	1100	1480	1610	827	516
31	.00	---	.00	.00	---	208	---	1090	---	1590	873	---
TOTAL	11.00	.00	.00	.00	.00	3141.00	13190	21479	44502	48590	32765	27229
MEAN	.35	.000	.000	.000	.000	101	440	693	1483	1567	1057	908
MAX	11	.00	.00	.00	.00	212	905	1100	1770	1640	1570	1080
MIN	.00	.00	.00	.00	.00	.00	150	441	822	1420	604	516
AC-FT	22	.00	.00	.00	.00	6230	26160	42600	88270	96380	64990	54010

CAL YR 1979 TOTAL 175581.40 MEAN 481 MAX 1800 MIN .00 AC-FT 348300
WTR YR 1980 TOTAL 190907.00 MEAN 522 MAX 1770 MIN .00 AC-FT 378700

06226000 WYOMING CANAL NEAR LENORE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Samples collected by Water and Power Resources Service.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY										
01...	1030	8.0	683	145	267	48	79	100	--	--
07...	1045	11.0	554	157	235	--	--	--	--	98
14...	1100	8.0	577	130	203	--	--	--	--	97
21...	1100	13.0	669	710	1280	30	72	100	--	--
28...	1030	10.0	1040	193	542	--	--	--	--	82
JUN										
03...	1515	12.0	1090	101	297	--	--	--	--	76
11...	1515	13.0	1570	925	3920	25	54	98	100	--
18...	1515	15.0	1710	582	2690	23	53	96	100	--
25...	1515	15.0	1220	188	619	--	--	--	--	81
JUL										
03...	1030	13.0	1490	144	579	--	--	--	--	59
09...	1100	15.0	1590	95	408	--	--	--	--	46
16...	1100	14.0	1610	60	261	--	--	--	--	35
23...	1045	16.0	1590	63	270	--	--	--	--	31
30...	1100	15.0	1610	59	256	--	--	--	--	30
AUG										
06...	1030	16.0	1390	36	135	--	--	--	--	37
13...	1100	15.0	1260	28	95	--	--	--	--	42
20...	1100	12.0	905	29	71	--	--	--	--	68
27...	1100	15.0	781	18	38	--	--	--	--	62
SEP										
03...	1030	14.0	767	16	33	--	--	--	--	71
10...	1100	16.0	1080	31	90	--	--	--	--	52
17...	1130	11.0	893	44	106	--	--	--	--	77

06227500 WYOMING CANAL BELOW PILOT DIVERSION, NEAR MORTON, WY

LOCATION.--Lat 43°14', long 108°46', in NE¼ sec.20, T.3 N., R.1 E., Fremont County, Hydrologic Unit 10080005, at former gaging station, 0.2 mi (0.3 km) downstream from diversion to Pilot Butte powerplant and Pilot Butte Reservoir, and 1.5 mi (2.4 km) northwest of Morton.

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Samples collected and discharge furnished by Water and Power Resources Service.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY						
01...	1330	8.0	160	80	35	99
28...	1330	10.0	500	313	423	95
JUL						
03...	1330	14.0	710	122	234	70
AUG						
06...	1330	16.0	740	22	44	56
SEP						
03...	1330	14.0	550	7	10	94

06228000 WIND RIVER AT RIVERTON, WY

LOCATION.--Lat 43°00'38", long 108°22'32", in NE¼NW¼NW¼ sec.2, T.1 S., R.4 E., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 265 ft (81 m) downstream from bridge on State Highway 789, 1.1 mi (1.8 km) southeast of post office in Riverton, and 1.5 mi (2.4 km) upstream from Little Wind River.

DRAINAGE AREA.--2,309 mi^2 (5,980 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to August 1906, August to December 1907, May to October 1908, May 1911 to current year. Monthly discharge only for some periods, published in WSP 1309. Published as Big Wind River near Arapahoe Agency 1906 and as Big Wind River near Riverton 1907-08.

REVISED RECORDS.--WSP 1509: 1935. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,901.56 ft (1,493.995 m), National Geodetic Vertical Datum of 1929. See WSP 1729 for history of changes prior to Oct. 13, 1930. Oct. 13, 1930, to Apr. 15, 1968, water-stage recorder at site 280 ft (85 m) upstream at datum 2.00 ft (0.610 m) higher. Apr. 16 to Nov. 17, 1968, water-stage recorder at site 880 ft (268 m) upstream at datum 2.00 ft (0.610 m) higher. Nov. 18, 1968, to July 28, 1970, water-stage recorder at site 225 ft (69 m) upstream at datum 2.00 ft (0.610 m) higher. July 29, 1970, to Sept. 30, 1977, water-stage recorder at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Some regulation by Bull Lake beginning in 1938 (see station 06224500) and Pilot Butte Reservoir beginning in 1926, combined capacity, 182,000 acre-ft (224 hm^3). Diversions above station for irrigation of about 128,000 acres (518 km^2) above and below station. The Wyoming canal of the Riverton project is the major diversion. This diversion began in 1926 and part of it can be returned to the river above station through Pilot wasteway. Additional waste water returns to river below station through Fivemile and Muddy Creeks.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,300 ft^3/s (377 m^3/s) June 15, 1935, gage height, 10.15 ft (3.094 m), present datum, from rating curve extended above 7,200 ft^3/s (204 m^3/s); minimum daily, 9.8 ft^3/s (0.28 m^3/s) May 28, July 16, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,570 ft^3/s (158 m^3/s) May 23, gage height, 8.60 ft (2.621 m); minimum daily, 68 ft^3/s (1.93 m^3/s) July 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	532	410	310	320	330	300	120	713	397	2250	256	175
2	497	388	330	330	330	300	123	867	385	3180	219	189
3	431	390	380	320	330	300	117	860	334	4270	191	179
4	406	416	420	320	330	300	116	974	244	4470	162	151
5	346	450	420	340	330	290	117	1360	140	3870	185	108
6	331	463	400	350	320	280	128	1370	301	3210	168	90
7	300	446	400	350	310	280	125	1490	422	2250	154	101
8	307	432	390	350	310	270	108	1470	204	1360	155	93
9	303	423	380	340	310	260	105	1310	183	1140	166	93
10	320	411	370	340	310	250	105	1020	1620	1080	215	103
11	321	413	330	330	300	250	105	1050	2970	919	198	102
12	304	420	280	340	300	240	106	960	2990	820	149	112
13	315	374	250	350	300	230	116	873	3160	846	148	145
14	323	397	310	360	300	220	145	612	2750	822	147	322
15	392	388	390	370	300	240	151	365	2280	823	140	270
16	506	388	380	360	300	240	106	331	1570	727	192	192
17	494	391	360	350	300	220	102	695	1100	440	230	157
18	491	412	370	350	310	200	99	906	1690	187	199	156
19	487	406	360	340	320	140	105	690	2470	169	117	157
20	488	375	360	340	320	120	130	667	3650	136	74	290
21	508	387	350	350	320	125	170	1440	4660	206	116	235
22	492	341	390	350	320	125	246	3510	4790	124	154	185
23	485	313	390	340	330	125	218	4660	4630	68	134	175
24	485	323	380	320	330	120	163	4820	4540	103	134	139
25	487	334	380	310	330	115	123	3820	3940	380	142	118
26	488	339	380	290	330	120	199	2520	3600	266	179	117
27	475	330	360	280	320	130	266	1580	3410	217	177	111
28	478	320	340	270	310	125	223	954	2740	325	177	109
29	461	310	310	280	310	120	220	623	2140	354	167	111
30	465	310	300	300	---	120	534	490	1990	322	151	139
31	443	---	310	320	---	120	---	389	---	302	175	---
TOTAL	13161	11500	11080	10260	9160	6275	4691	43389	65300	35636	5171	4624
MEAN	425	383	357	331	316	202	156	1400	2177	1150	167	154
MAX	532	463	420	370	330	300	534	4820	4790	4470	256	322
MIN	300	310	250	270	300	115	99	331	140	68	74	90
AC-FT	26100	22810	21980	20350	18170	12450	9300	86060	129500	70680	10260	9170

CAL YR 1979 TOTAL 163050 MEAN 447 MAX 3870 MIN 45 AC-FT 323400
WTR YR 1980 TOTAL 220247 MEAN 602 MAX 4820 MIN 68 AC-FT 436900

06228000 WIND RIVER AT RIVERTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-58, 1960 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 03...	1110	--	436	8.3	11.5	170	31	51	10	32	1.1	2.8
NOV 08...	1410	--	436	8.6	2.5	180	14	49	14	21	.7	3.0
DEC 10...	1415	370	--	8.2	.0	170	31	46	13	25	.8	2.3
JAN 15...	1445	370	--	8.2	.0	210	21	56	16	24	.7	3.0
MAR 05...	1345	290	--	8.0	.0	200	11	57	14	29	.9	1.8
APR 02...	0955	--	120	8.3	2.0	220	7	65	15	41	1.2	2.9
MAY 07...	1415	--	1330	8.0	12.0	76	0	22	5.2	15	.7	1.6
JUN 02...	1015	--	401	8.0	9.0	78	0	22	5.7	19	.9	2.7
JUL 11...	1050	--	803	8.0	16.0	65	0	19	4.3	8.0	.4	1.5
AUG 11...	1040	--	204	8.2	18.0	120	13	29	11	23	.9	1.4
SEP 12...	1415	--	91	8.7	17.0	170	22	48	11	35	1.2	1.2

DATE	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 03...	170	0	140	51	12	.3	11	254	.35	299	.20	.170
NOV 08...	190	6	170	53	3.4	.4	13	262	.36	308	.00	.000
DEC 10...	170	0	140	61	4.5	.4	14	260	.35	260	1.9	.520
JAN 15...	230	0	190	62	6.0	.4	17	296	.40	296	.25	.080
MAR 05...	230	0	190	65	7.9	.4	13	298	.41	233	.23	.040
APR 02...	260	0	210	79	7.4	.6	15	356	.48	115	.11	.020
MAY 07...	100	0	82	21	1.7	.2	13	130	.18	467	.09	.410
JUN 02...	120	0	98	46	2.4	.3	14	171	.23	185	.01	.060
JUL 11...	83	0	68	13	1.5	.3	3.7	92	.13	199	.00	.030
AUG 11...	130	0	110	51	4.1	.3	6.0	189	.26	104	.03	.040
SEP 12...	150	15	150	87	4.6	.3	5.8	300	.41	73.7	.06	.040

06228350 SOUTH FORK LITTLE WIND RIVER ABOVE WASHAKIE RESERVOIR, NEAR FORT WASHAKIE, WY

LOCATION.--Lat 42°58'06", long 109°02'13", in SE¼SW¼SE¼ sec.18, T.1 S., R.2 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank 1.9 mi (3.1 km) upstream from Washakie Dam and 8.0 mi (12.9 km) southwest of Fort Washakie.

DRAINAGE AREA.--90.3 mi^2 (233.9 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,440 ft (1,963 m), from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,370 ft^3/s (38.8 m^3/s) June 15, 1978, gage height, 6.82 ft (2.079 m); minimum daily, 4.5 ft^3/s (0.13 m^3/s) Feb. 1-9, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 740 ft^3/s (21.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 23	2300	958	27.1	5.87	1.789	June 20	0430	1,310	37.1	6.70	2.042
June 12	0430	*1,360	38.5	6.80	2.073	July 1	0930	1,140	32.3	6.32	1.926

Minimum daily discharge, 10 ft^3/s (0.28 m^3/s) Jan. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	31	19	13	12	12	18	243	352	1070	139	60
2	32	27	19	13	13	12	20	205	370	988	133	56
3	30	32	19	13	13	12	21	212	364	971	127	51
4	30	31	19	12	13	12	22	245	443	952	117	47
5	29	30	19	12	13	12	23	228	530	689	105	45
6	28	26	19	12	13	13	23	222	468	608	94	43
7	27	27	19	12	13	13	22	238	394	537	88	43
8	27	24	18	11	14	13	21	248	501	495	87	43
9	27	25	18	11	15	13	22	282	717	521	88	44
10	27	21	18	11	15	13	22	238	900	542	85	45
11	26	26	17	13	15	13	22	192	1070	548	81	45
12	25	22	15	13	14	13	21	164	1190	471	76	51
13	25	24	14	13	14	12	21	146	1040	424	73	63
14	24	23	14	14	13	13	24	152	963	399	72	66
15	24	23	15	15	13	14	29	146	873	350	74	63
16	25	22	15	15	14	13	29	150	638	307	85	59
17	26	23	14	15	14	14	30	220	722	290	96	54
18	26	22	14	14	14	14	38	173	987	282	86	50
19	34	20	14	13	15	14	52	176	1040	277	77	50
20	45	20	13	12	16	14	71	270	1150	280	79	49
21	43	21	13	13	16	14	91	449	1140	254	73	47
22	43	23	13	13	16	14	94	648	1070	234	68	46
23	41	22	13	13	15	14	149	849	1050	220	65	44
24	39	21	13	12	15	14	109	825	942	211	66	43
25	38	21	14	12	14	14	112	614	912	196	63	42
26	36	21	15	11	14	15	128	415	926	180	70	40
27	32	20	14	11	14	15	129	328	899	168	70	38
28	33	19	14	10	14	15	148	311	645	158	69	36
29	32	18	14	11	13	14	176	315	568	148	65	35
30	31	18	14	12	---	16	220	322	780	144	62	34
31	29	---	13	12	---	15	---	377	---	144	62	---
TOTAL	967	703	482	387	407	419	1907	9603	23644	13058	2595	1432
MEAN	31.2	23.4	15.5	12.5	14.0	13.5	63.6	310	788	421	83.7	47.7
MAX	45	32	19	15	16	16	220	849	1190	1070	139	66
MIN	24	18	13	10	12	12	18	146	352	144	62	34
AC-FT	1920	1390	956	768	807	831	3780	19050	46900	25900	5150	2840

CAL YR 1979 TOTAL 38545 MEAN 106 MAX 1030 MIN 11 AC-FT 76450
WTR YR 1980 TOTAL 55604 MEAN 152 MAX 1190 MIN 10 AC-FT 110300

06228350 SOUTH FORK LITTLE WIND RIVER ABOVE WASHAKIE RESERVOIR, NEAR FORT WASHAKIE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT												
01...	1430	33	69	7.3	11.5	29	8	7.5	2.6	2.8	.2	.5
NOV												
05...	1105	29	74	7.7	1.5	33	11	8.9	2.7	4.2	.3	.6
29...	1010	17	125	7.7	.0	46	7	12	4.0	4.7	.3	.7
FEB												
06...	1450	13	120	6.7	.0	55	19	14	4.9	4.4	.3	.8
MAR												
19...	0930	11	190	7.5	1.5	52	12	13	4.7	5.2	.3	.8
APR												
24...	1300	101	60	6.7	4.0	26	6	6.9	2.1	2.2	.2	.9
MAY												
21...	1200	362	36	7.0	5.0	17	2	4.8	1.2	1.3	.1	.6
JUN												
12...	0850	1260	28	7.0	5.0	11	5	3.2	.8	.9	.1	.6
26...	1030	946	28	7.3	7.5	13	0	3.6	1.0	1.9	.2	.5
JUL												
31...	1115	146	44	7.6	15.5	15	3	4.2	1.2	1.2	.1	.4
AUG												
28...	1110	70	48	7.4	11.5	20	2	5.5	1.6	1.8	.2	.4

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
OCT											
01...	21	8.3	4.8	.1	3.5	50	.07	4.46	1.6	.000	.00
NOV											
05...	22	10	5.6	.1	4.8	51	.07	3.99	.11	.030	.09
29...	39	7.9	9.2	.1	6.4	69	.09	3.19	.15	.000	.00
FEB											
06...	36	--	--	--	6.6	--	--	--	--	.030	.09
MAR											
19...	40	6.2	11	.1	6.7	72	.10	2.14	.11	.000	.00
APR											
24...	20	9.6	2.7	.1	6.7	43	.06	11.7	.06	.010	.03
MAY											
21...	15	4.7	1.1	.1	5.5	28	.04	27.4	.03	.010	.03
JUN											
12...	6	4.6	.8	.0	3.4	18	.02	61.2	.06	.030	.09
26...	21	1.8	.6	.1	2.8	25	.03	63.9	.08	.010	.03
JUL											
31...	12	.7	1.4	.5	27	44	.06	17.3	.00	.010	.03
AUG											
28...	18	3.7	3.0	.0	2.8	30	.04	5.67	.00	.010	.03

06231000 LITTLE WIND RIVER ABOVE ARAPAHOE, WY

LOCATION.--Lat 42°57'35", long 108°29'51", in NW¼NW¼SW¼ sec.23, T.1 S., R.3 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on left bank 0.4 mi (0.6 km) southwest of Arapahoe shcool, 1.2 mi (1.9 km) upstream from Popo Agie River, and 5.4 mi (8.7 km) downstream from Seventeen Mile bridge.

DRAINAGE AREA.--660 mi^2 (1,709 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1906 to December 1909, May 1911 to November 1918, October 1979 to September 1980.

GAGE.--Water-stage recorder. Altitude of gage is 4,990 ft (1,521 m), from topographic map.

REMARKS.--Records good except those for winter period and period of no gage-height record, Oct. 1-18, which are poor. Some regulation by Washakie Reservoir, 34 mi (54.7 km) upstream, capacity 7,940 acre-ft (9.79 hm^3), and return flow from irrigation. Diversions for irrigation of about 26,000 acres (105 km^2) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 3,840 ft^3/s (109 m^3/s) June 17, 1911, gage height, 6.60 ft (2.012 m), datum then in use. Minimum daily recorded, 15 ft^3/s (0.42 m^3/s) Sept. 16, 17, 20, 21, 1914.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,110 ft^3/s (59.8 m^3/s) June 13, gage height, 10.94 ft (3.335 m); minimum daily, 26 ft^3/s (0.74 m^3/s) Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	104	64	56	50	90	84	240	226	916	41	44
2	66	96	68	56	52	88	84	205	197	1370	45	54
3	80	98	72	58	54	84	87	178	161	1340	41	49
4	80	98	78	58	56	82	83	172	129	1280	43	31
5	80	101	80	58	60	80	89	160	177	1240	43	28
6	80	104	82	58	64	78	98	142	264	911	43	26
7	76	98	82	58	68	78	111	163	235	729	46	28
8	76	98	82	58	72	78	96	183	116	596	45	30
9	74	96	78	60	72	80	88	193	297	490	51	31
10	80	91	70	66	70	82	96	196	829	445	55	34
11	72	84	62	76	68	84	93	278	1400	428	56	36
12	70	78	60	84	66	90	86	321	1750	418	40	37
13	68	78	56	96	68	94	81	431	1990	402	39	37
14	66	76	56	110	68	100	81	303	1700	351	43	36
15	66	74	56	115	70	105	86	266	1490	300	41	36
16	64	72	54	110	72	115	84	299	1300	221	54	32
17	66	70	54	100	72	120	81	448	914	165	63	31
18	64	70	50	94	74	120	79	492	1000	143	69	31
19	61	68	50	86	76	115	81	398	1330	142	59	30
20	61	68	50	80	78	110	86	396	1530	164	62	27
21	61	68	52	78	80	100	96	464	1700	169	55	28
22	61	66	52	78	82	90	103	535	1670	184	48	32
23	68	66	52	82	84	77	127	746	1530	151	41	33
24	91	64	54	84	86	71	181	1450	1360	131	37	30
25	98	64	54	80	88	73	148	1970	1190	112	36	30
26	98	64	54	74	88	70	139	1430	1140	98	38	30
27	98	64	54	62	90	70	152	793	1150	77	43	30
28	101	64	54	52	90	70	152	458	1090	58	40	31
29	101	64	56	46	90	71	158	304	799	46	40	31
30	104	62	56	48	---	73	178	277	689	36	35	29
31	104	---	56	50	---	82	---	220	---	37	34	---
TOTAL	2397	2368	1898	2271	2108	2720	3188	14111	29353	13150	1426	992
MEAN	77.3	78.9	61.2	73.3	72.7	87.7	106	455	978	424	46.0	33.1
MAX	104	104	82	115	90	120	181	1970	1990	1370	69	54
MIN	61	62	50	46	50	70	79	142	116	36	34	26
AC-FT	4750	4700	3760	4500	4180	5400	6320	27990	58220	26080	2830	1970

WTR YR 1980 TOTAL 75982 MEAN 208 MAX 1990 MIN 26 AC-FT 150700

06231000 LITTLE WIND RIVER ABOVE ARAPAHOE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 11...	1530	72	--	8.5	14.5	450	280	110	42	86	1.8	4.3
NOV 12...	1100	78	--	8.2	.0	300	140	73	29	66	1.7	2.5
DEC 05...	1115	80	--	8.1	.0	300	140	75	27	47	1.2	2.8
JAN 08...	1240	58	--	8.0	.0	370	180	98	31	58	1.3	2.8
FEB 25...	1130	88	--	7.9	.0	330	170	72	36	53	1.3	4.3
APR 03...	1145	--	83	8.2	2.0	410	230	86	47	84	1.8	3.5
MAY 06...	0910	--	139	8.1	14.0	180	73	40	19	29	.9	1.4
JUN 26...	0650	--	1130	7.8	15.0	75	27	20	6.0	8.0	.4	1.6
JUL 18...	0910	--	148	8.6	18.0	230	89	50	25	34	1.0	1.8
AUG 14...	1030	--	45	8.3	20.0	420	180	90	46	92	2.0	3.4
SEP 12...	1000	--	37	8.3	16.0	460	260	100	51	110	2.2	2.8

DATE	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 11...	210	0	170	440	15	.7	6.0	814	1.11	158	.20	.020
NOV 12...	200	0	160	200	10	.5	6.9	484	.66	102	.30	.010
DEC 05...	190	0	160	220	11	.6	7.8	484	.66	105	.20	.000
JAN 08...	230	0	190	270	13	.6	9.4	593	.81	92.9	.41	.020
FEB 25...	200	0	160	250	9.9	.5	7.4	530	.72	126	.36	.010
APR 03...	220	0	180	400	13	.6	6.0	750	1.02	168	.23	.030
MAY 06...	130	0	110	130	5.7	.3	5.9	290	.39	109	.16	.050
JUN 26...	58	0	48	43	1.4	.5	4.8	110	.15	336	.00	.010
JUL 18...	160	6	140	150	9.3	.4	6.4	360	.49	144	.00	.030
AUG 14...	290	0	240	360	10	.6	8.4	751	1.02	91.2	.16	.030
SEP 12...	250	0	200	450	12	.5	4.0	850	1.16	84.9	.10	.100

06233000 LITTLE POPO AGIE RIVER NEAR LANDER, WY

LOCATION.--Lat 42°43'00", long 108°38'34", in NE¼SE¼ sec.27, T.32 N., R.99 W., Fremont County, Hydrologic Unit 10080003, on left bank 700 ft (213 m) downstream from bridge on State Highway 28, 2.5 mi (4.0 km) downstream from Red Canyon Creek, and 9.5 mi (15.3 km) southeast of post office in Lander.

DRAINAGE AREA.--125 mi^2 (324 km^2).

PERIOD OF RECORD.--March 1946 to current year (no winter records since 1971).

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,436.49 ft (1,657.042 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diversions for irrigation of about 540 acres (2.19 km^2) above station. Slight regulation by Christina Lake, capacity, about 3,860 acre-ft (4.76 hm^3).

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--25 years (water years 1947-71), 80.3 ft^3/s (2.274 m^3/s), 58,180 acre-ft/yr (71.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 ft^3/s (56.9 m^3/s) June 16, 1963, gage height, 6.64 ft (2.024 m); minimum daily, 12 ft^3/s (0.34 m^3/s) Jan. 20, 21, Feb. 26 to Mar. 2, 1960, Jan. 10, 11, 18, 19, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft^3/s (9.91 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 9	2230	448	12.7	4.26	1.298	June 12	0800	*946	26.8	5.36	1.634
May 23	2130	820	23.2	5.11	1.558						

Minimum daily discharge during period of operation, 18 ft^3/s (0.51 m^3/s) Apr. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							19	238	397	489	76	72
2							21	253	412	457	76	70
3							24	265	409	442	72	66
4							21	304	472	418	72	66
5							22	346	538	340	68	66
6							26	361	506	301	61	66
7							24	358	492	265	59	66
8							18	388	496	247	57	66
9							18	421	572	247	54	66
10							21	418	631	232	52	66
11							21	376	725	220	52	68
12							19	340	895	200	48	78
13							19	307	815	185	48	86
14							24	286	755	175	48	80
15							30	283	660	165	52	76
16							32	289	530	178	57	70
17							32	400	500	140	70	70
18							37	346	581	138	66	66
19							48	349	563	132	59	66
20							64	370	631	128	54	66
21							84	436	680	120	52	66
22							106	563	665	115	61	66
23							140	730	636	108	80	66
24							135	735	586	106	80	66
25							135	608	546	101	76	66
26							148	489	526	99	80	64
27							155	445	510	90	78	63
28							160	421	397	88	76	61
29							180	409	358	80	74	59
30							210	397	433	80	72	57
31							---	409	---	78	74	---
TOTAL							1993	12340	16917	6164	2004	2030
MEAN							66.4	398	564	199	64.6	67.7
MAX							210	735	895	489	80	86
MIN							18	238	358	78	48	57
AC-FT							3950	24480	33550	12230	3970	4030

06233900 POPO AGIE RIVER NEAR ARAPAHOE, WY

LOCATION.--Lat 42°56'47", Long 108°30'34", in NE¼NE¼SW¼ sec.27, T.1 S., R.3 E., Fremont County, Hydrologic Unit 10080003, Wind River Indian Reservation, on left bank 1.4 mi (2.3 km) southwest of Arapahoe school and 3.0 mi (4.8 km) upstream from Little Wind River.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to September 1980.

GAGE.--Water-stage recorder. Datum of gage is 4,995.72 ft (1,522.695 m), National Geodetic Vertical Datum of 1929

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 36,900 acres (149 km²) above station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,190 ft³/s (90.3 m³/s) June 12, gage height, 9.21 ft (2.807 m); minimum daily, 78 ft³/s (2.21 m³/s) Jan. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	181	105	92	80	155	127	722	1280	1500	198	188
2	130	172	110	96	82	150	148	784	1320	1590	187	186
3	150	178	115	100	84	145	136	784	1320	1520	184	169
4	145	196	120	110	88	140	130	867	1400	1500	190	158
5	145	187	125	115	94	135	139	925	1650	1420	184	131
6	145	181	125	115	105	130	169	995	1600	1320	168	135
7	140	172	130	110	110	130	190	1050	1400	1200	147	146
8	140	172	130	110	110	130	154	1060	1400	1040	121	147
9	135	166	125	115	110	135	160	1170	1720	960	143	157
10	140	160	120	120	105	140	190	1170	2070	850	124	168
11	150	140	105	130	105	145	181	1200	2490	820	111	172
12	135	125	100	140	105	150	157	1190	2910	860	108	184
13	130	125	100	150	105	160	151	1140	2860	740	105	229
14	130	120	98	180	110	170	160	1040	2500	640	109	245
15	125	120	94	190	110	170	184	963	2230	567	121	230
16	130	115	92	180	115	160	178	930	1820	512	152	217
17	125	115	88	160	115	150	169	1190	1620	457	200	214
18	127	110	86	140	120	142	169	1190	1880	447	196	200
19	136	110	86	120	125	136	175	1110	2000	430	151	194
20	193	105	86	105	130	124	200	1130	2190	412	141	190
21	193	100	84	96	135	124	285	1350	2280	377	146	190
22	222	100	84	96	140	124	370	1810	2270	343	144	200
23	222	100	84	100	145	116	489	2420	2270	314	154	210
24	222	100	84	105	145	113	482	2740	2040	290	162	200
25	218	100	86	100	150	119	456	2320	1910	279	153	195
26	205	100	86	94	160	113	478	1800	1910	258	155	190
27	190	100	86	90	160	113	486	1540	1920	245	163	195
28	178	100	86	84	160	113	508	1400	1680	230	172	200
29	178	100	86	78	160	113	546	1390	1370	214	168	195
30	200	100	88	80	---	119	610	1340	1240	210	171	190
31	190	---	90	80	---	119	---	1330	---	206	175	---
TOTAL	4989	3950	3084	3581	3463	4183	7977	40050	56550	21751	4803	5625
MEAN	161	132	99.5	116	119	135	266	1292	1885	702	155	188
MAX	222	196	130	190	160	170	610	2740	2910	1590	200	245
MIN	120	100	84	78	80	113	127	722	1240	206	105	131
AC-FT	9900	7830	6120	7100	6870	8300	15820	79440	112200	43140	9530	11160

WTR YR 1980 TOTAL 160006 MEAN 437 MAX 2910 MIN 78 AC-FT 317400

06233900 POPO AGIE RIVER NEAR ARAPAHOE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May to September 1980.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE, WATER (DEG C)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY											
22...	0950	1850	11.0	--	<0	.00	<.0	.00	0	.00	.0
JUN											
19...	1345	1990	15.0	--	0	.00	.0	.00	0	.00	.0
JUL											
15...	1410	573	17.5	.07	0	.00	.0	.00	0	.00	.0
AUG											
14...	0910	108	18.5	.02	0	.00	.0	.00	0	.00	.0
SEP											
12...	0850	167	15.5	.06	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
MAY				
22...	.03	.0	.04	.0
JUN				
19...	.00	.0	.04	.0
JUL				
15...	.02	.0	.05	.0
AUG				
14...	.12	.0	.14	.0
SEP				
12...	.16	.0	.07	.0

06235000 BEAVER CREEK NEAR ARAPAHOE, WY

LOCATION.--Lat 42°57'16", long 108°25'39", in NW¼NE¼ sec.29, T.1 S., R.4 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, at former gaging station, 1.0 mi (1.6 km) upstream from mouth, and 3.8 mi (6.1 km) east of Arapahoe.

DRAINAGE AREA.--354 mi² (917 km²).

PERIOD OF RECORD.--Water years 1950-53, 1968 to current year.

REMARKS.--No flow was observed Oct. 18, July 30, Aug. 28.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)
NOV												
06...	1420	6.2	8.4	9.0	560	270	160	38	210	3.9	11	350
DEC												
19...	1330	1.2	8.6	.0	760	480	220	48	270	4.3	9.3	340
JAN												
17...	0915	.20	8.2	.5	940	510	230	86	310	4.4	12	520
MAR												
03...	0940	11	8.1	2.0	490	290	140	31	180	3.6	11	240
APR												
08...	1410	20	8.4	13.0	600	400	170	44	220	3.9	16	250
MAY												
13...	1240	277	7.9	8.5	140	33	39	8.9	86	3.2	4.2	130
29...	1445	135	8.2	15.0	140	25	49	15	35	1.1	6.3	140
JUN												
26...	0920	4.8	8.5	23.0	490	280	140	34	160	3.1	13	260

DATE	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
NOV											
06...	0	290	550	120	1.2	15	1280	1.74	21.4	.10	.650
DEC											
19...	0	280	830	140	1.1	18	1710	2.33	5.54	.14	.070
JAN											
17...	0	430	890	220	1.0	21	2030	2.76	1.10	.45	.140
MAR											
02...	0	200	600	100	1.4	13	1200	1.63	35.6	.38	.070
APR											
08...	0	200	660	120	1.0	16	1400	1.90	75.6	1.0	.400
MAY											
13...	0	110	170	23	.6	16	410	.56	307	.24	.450
29...	0	120	120	17	.5	15	330	.45	120	.01	.140
JUN											
26...	0	210	480	96	.9	21	1100	1.50	14.3	.00	.040

06235500 LITTLE WIND RIVER NEAR RIVERTON, WY

LOCATION.--Lat 42°59'51", long 108°22'29", in NE¼NW¼ sec.11, T.1 S., R.4 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank 1.8 mi (2.9 km) upstream from mouth and 1.9 mi (3.1 km) southeast of Riverton.

DRAINAGE AREA.--1,904 mi^2 (4,931 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to current year. Prior to October 1958, published as Popo Agie River near Riverton.

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,901.84 ft (1,494.081 m), National Geodetic Vertical Datum of 1929. Prior to Sept. 19, 1956, at site 600 ft (183 m) downstream at same datum.

REMARKS.--Records good except those for winter period and periods of no gage-height record, Jan. 24 to Feb. 20, July 8-11, which are poor. Diversions for irrigation of about 62,900 acres (255 km^2) above station.

AVERAGE DISCHARGE.--39 years, 585 ft^3/s (16.57 m^3/s), 423,800 acre-ft/yr (523 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft^3/s (416 m^3/s) June 17, 1963, gage height, 10.85 ft (3.307 m); minimum daily, 41 ft^3/s (1.16 m^3/s) Aug. 7, 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,200 ft^3/s (90.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 24	1815	4,380	124	6.51	1.984	June 21	2015	4,260	121	6.44	1.963
June 12	2300	*5,040	143	6.86	2.091	July 2	1945	3,710	105	6.13	1.868

Minimum daily discharge, 125 ft^3/s (3.54 m^3/s) Jan. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	189	286	175	155	135	280	231	1180	1750	2810	273	250
2	219	275	185	155	135	265	254	1280	1720	3480	266	264
3	243	274	190	165	145	245	254	1260	1660	3330	249	234
4	231	293	200	170	150	235	269	1310	1670	3330	255	212
5	234	292	210	175	150	230	273	1370	1920	2800	256	196
6	238	287	220	175	170	225	309	1400	2010	2230	244	184
7	226	276	220	175	180	225	343	1470	1810	1960	221	200
8	222	278	210	175	185	225	305	1530	1670	1730	192	207
9	219	270	205	180	190	225	273	1630	2070	1510	200	216
10	229	257	190	190	180	230	277	1660	2680	1400	206	233
11	237	230	175	215	180	235	285	1840	3500	1380	180	233
12	218	210	165	225	185	250	257	1910	4400	1340	174	233
13	199	205	160	250	190	270	250	1930	4880	1220	173	264
14	196	200	160	290	195	300	281	1610	4230	1070	178	288
15	193	200	155	310	195	320	305	1460	3750	955	175	282
16	195	195	150	290	200	330	318	1410	3100	820	238	264
17	204	190	140	260	200	330	305	1830	2450	718	276	259
18	199	185	130	240	210	330	297	1910	2690	664	285	244
19	196	185	130	220	220	320	309	1780	3170	620	246	232
20	220	180	140	190	225	310	352	1750	3570	616	229	227
21	244	175	140	185	230	290	440	1990	4050	584	212	249
22	255	170	140	190	240	270	559	2440	4090	554	204	269
23	273	170	140	190	245	250	718	3150	3870	506	197	275
24	304	170	145	195	260	238	865	4060	3590	462	204	277
25	310	170	145	185	280	238	790	4130	3210	429	202	270
26	305	170	145	175	285	238	763	3170	3060	400	199	272
27	292	170	150	155	290	231	803	2480	3050	370	214	280
28	283	170	150	140	290	224	857	2080	2660	336	219	273
29	284	170	150	125	290	214	887	1930	2070	304	217	264
30	305	165	155	130	---	214	976	1870	2130	284	216	248
31	291	---	155	135	---	224	---	1820	---	272	226	---
TOTAL	7453	6468	5125	6010	6030	8011	13405	60640	86480	38484	6826	7399
MEAN	240	216	165	194	208	258	447	1956	2883	1241	220	247
MAX	310	293	220	310	290	330	976	4130	4880	3480	285	288
MIN	189	165	130	125	135	214	231	1180	1660	272	173	184
AC-FT	14780	12830	10170	11920	11960	15890	26590	120300	171500	76330	13540	14680

CAL YR 1979 TOTAL 157185 MEAN 431 MAX 3830 MIN 124 AC-FT 311800
WTR YR 1980 TOTAL 252331 MEAN 689 MAX 4880 MIN 125 AC-FT 500500

06235500 LITTLE WIND RIVER NEAR RIVERTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-58, 1960-64, 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT												
03...	1345	--	242	8.5	14.5	360	200	87	34	68	1.6	3.3
NOV												
08...	1130	--	273	8.6	4.5	320	150	72	33	54	1.3	2.3
DEC												
18...	1115	130	--	8.1	.0	370	190	90	34	59	1.3	2.3
JAN												
15...	1100	310	--	8.4	.0	340	170	79	35	56	1.3	4.9
FEB												
25...	1425	280	--	7.7	.0	370	210	72	35	56	1.4	5.8
APR												
02...	1400	--	257	8.4	4.0	400	210	95	39	79	1.7	3.8
29...	1330	--	872	8.0	15.0	170	47	42	15	28	.9	2.0
MAY												
29...	1015	--	1910	7.9	10.0	120	38	30	10	14	.6	2.3
JUN												
12...	1410	--	4380	7.0	16.0	66	17	18	5.2	9.9	.5	2.2
JUL												
14...	1010	--	1070	7.8	18.0	140	50	32	19	24	.8	1.7
AUG												
11...	1445	--	183	8.6	20.0	390	190	92	39	69	1.5	2.6
SEP												
08...	1400	--	208	8.5	19.0	400	200	87	44	39	.9	1.6

DATE	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT												
03...	200	0	160	330	10	.5	4.2	633	.86	414	.43	.040
NOV												
08...	200	6	170	230	5.2	.5	1.8	505	.69	372	.10	.000
DEC												
18...	220	0	180	290	11	.4	8.3	610	.83	214	.29	.110
JAN												
15...	210	0	170	280	11	.4	16	586	.80	490	1.0	.160
FEB												
25...	200	0	160	250	10	.4	8.9	538	.73	407	.73	.110
APR												
02...	230	0	190	360	18	.6	7.1	713	.97	495	.15	.130
29...	150	0	120	99	7.0	.3	7.0	270	.37	636	.09	.510
MAY												
29...	100	0	82	58	2.5	.2	8.1	180	.24	928	.00	.200
JUN												
12...	60	0	49	38	1.6	.7	6.0	110	.15	1300	.03	.420
JUL												
14...	110	0	90	96	3.8	.2	6.5	234	.32	676	.02	.070
AUG												
11...	240	0	200	300	7.4	.5	5.6	636	.87	314	.03	.030
SEP												
08...	240	0	200	260	7.2	.5	7.6	570	.78	320	.06	.040

06236100 WIND RIVER ABOVE BOYSEN RESERVOIR, NEAR SHOSHONI, WY

LOCATION.--Lat 43°07'43", long 108°13'28", in NW¼NE¼NE¼ sec.25, T.2 N., R.5 E., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, 4.0 mi (6.4 km) upstream from Muskrat Creek, 5.3 mi (8.5 km) upstream from high-water line of Boysen Reservoir at elevation 4,725 ft (1,440 m), and 9.4 mi (15.1 km) southwest of Shoshoni.

DRAINAGE AREA.--4,390 mi^2 (11,370 km^2).

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)
OCT								
04...	0940	963	8.3	9.5	55	9.3	190	210
NOV								
14...	1400	920	8.4	.0	--	10.3	K8	250
DEC								
18...	1400	450	8.2	.0	4	9.8	110	280
JAN								
14...	0930	497	8.1	.0	4	11.2	100	270
FEB								
27...	0935	648	8.2	.0	30	9.6	--	270
APR								
07...	1200	560	8.5	6.0	1300	10.0	--	370
MAY								
05...	1200	3040	7.7	12.0	1000	9.2	280	100
JUN								
03...	1115	2370	8.0	13.0	360	9.2	360	110
JUL								
07...	1000	4840	7.4	17.0	250	9.0	100	74
AUG								
04...	1245	770	8.7	19.0	8	9.3	130	210
SEP								
02...	1230	870	8.6	15.5	9	13.6	180	250

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT									
04...	58	52	19	44	1.3	2.6	150	170	4.9
NOV									
14...	70	64	22	49	1.3	3.1	180	160	6.8
DEC									
18...	69	72	24	49	1.3	3.2	210	160	7.8
JAN									
14...	72	71	23	49	1.3	3.1	200	160	8.5
FEB									
27...	97	64	26	51	1.4	4.2	170	180	11
APR									
07...	190	87	36	93	2.1	4.2	180	350	15
MAY									
05...	25	27	8.2	15	.6	1.8	76	55	3.3
JUN									
03...	36	30	9.5	17	.7	1.6	78	62	3.4
JUL									
07...	19	20	5.9	10	.5	.8	55	37	.9
AUG									
04...	100	54	19	49	1.5	3.3	110	120	4.2
SEP									
02...	75	62	22	52	1.4	2.8	170	180	5.9

06236100 WIND RIVER ABOVE BOYSEN RESERVOIR, NEAR SHOSHONI, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)
OCT								
04...	.3	8.9	394	.54	1020	.47	.070	.21
NOV								
14...	.5	13	427	.58	1060	.07	.040	.12
DEC								
18...	.4	15	459	.62	558	.33	.040	.12
JAN								
14...	.4	15	453	.62	608	.64	.050	.15
FEB								
27...	.4	18	459	.62	803	.39	.130	.40
APR								
07...	.4	--	--	--	1050	.28	.310	.95
MAY								
05...	.1	12	169	.23	1390	.10	.530	1.6
JUN								
03...	.2	9.9	181	.25	1160	.09	.150	.46
JUL								
07...	.2	7.9	116	.16	1520	.00	.170	.52
AUG								
04...	.3	7.5	322	.44	669	.00	--	--
SEP								
02...	.4	8.0	437	.59	1030	.35	.100	.31

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE, WATER (DEG C)	PCB TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
23...	1545	--	9.0	.00	0	--	.0	.00	.0	.0	0
MAY											
20...	1445	--	17.5	.00	0	.0	.0	.00	.0	.0	0
SEP											
02...	1230	870	15.5	--	0	--	.0	--	.0	--	0

DATE	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
23...	.00	.0	.00	.0	.00	.0	.00	.00	.0	.00	.0
MAY											
20...	.00	.0	.00	.0	.00	.0	.00	.00	.0	.00	.0
SEP											
02...	--	.0	--	.1	--	.0	--	--	.0	--	.0

YELLOWSTONE RIVER BASIN

06236100 WIND RIVER ABOVE BOYSEN RESERVOIR, NEAR SHOSHONI, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)
OCT 23...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00
MAY 20...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00
SEP 02...	--	.0	--	--	.0	--	.0	--	.0	--

DATE	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL (UG/L)
OCT 23...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0
MAY 20...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0
SEP 02...	--	.0	--	--	--	.0	--	--	.00	--

DATE	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 23...	0	.00	.00	0	.00	.0	.00	0	.00	.0
MAY 20...	0	.00	--	<0	.00	<.0	.00	0	.00	.0
SEP 02...	0	--	.04	0	.00	.0	.01	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
OCT 23...	.00	.0	.00	.0
MAY 20...	.04	.0	.03	.0
SEP 02...	.06	.0	.04	.0

06246500 OCEAN DRAIN AT OCEAN LAKE OUTLET, NEAR PAVILLION, WY

LOCATION.--Lat 43°11'56", long 108°34'08", in NE¼NE¼NW¼ sec.31, T.3 N., R.3 E., Fremont County, Hydrologic Unit 10080005, on left bank 2,000 ft (610 m) downstream from Ocean Lake outlet, 6.4 mi (10.3 km) northeast of Kinnear, and 6.9 mi (11.1 km) southeast of Pavillion.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1948 to September 1953, April 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,230 ft (1,594 m) from topographic map. Sept. 1, 1948, to Sept. 30, 1953, water-stage recorder at site 1,850 ft (564 m) upstream at datum 1.32 ft (0.402 m) higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--7 years, 27.5 ft^3/s (0.779 m^3/s), 19,920 acre-ft/yr (24.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 141 ft^3/s (3.99 m^3/s) Aug. 24, 1979, gage height, 4.21 ft (1.283 m); no flow at times in 1949 and 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 95 ft^3/s (2.69 m^3/s) Oct. 1, gage height, 3.86 ft (1.177 m); minimum daily, 0.10 ft^3/s (0.003 m^3/s) Apr. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	46	34	27	21	.19	5.2	27	42	63	80	76
2	94	45	34	26	21	.19	5.5	27	42	65	81	77
3	92	44	34	26	21	.19	5.5	27	42	67	80	75
4	90	44	34	26	21	1.9	5.5	28	42	67	77	74
5	88	44	33	25	20	4.3	5.6	29	42	68	77	75
6	86	44	32	25	18	4.1	5.3	29	42	68	78	75
7	83	44	33	24	14	4.0	5.2	29	42	67	77	75
8	80	43	33	24	7.4	3.9	4.6	29	42	68	78	75
9	78	42	33	24	4.6	3.8	.64	29	43	68	79	76
10	76	42	32	24	5.8	3.6	.52	29	49	69	79	77
11	75	40	32	24	5.4	3.7	.49	33	50	69	79	77
12	73	41	32	24	5.8	3.8	.27	36	50	70	79	77
13	72	40	32	25	7.6	3.8	.26	37	49	71	79	78
14	71	40	32	25	.98	3.9	.30	38	50	70	80	79
15	69	40	32	25	.32	3.9	.38	39	49	68	81	80
16	67	40	32	26	.26	4.0	.26	40	48	68	82	81
17	66	39	30	25	.26	3.9	.26	42	49	69	84	78
18	65	38	30	25	.63	4.0	.41	42	51	70	84	77
19	64	38	18	25	.57	4.1	.41	43	57	71	83	76
20	62	38	19	24	.25	4.1	.30	44	56	71	82	74
21	60	38	28	24	.23	4.1	.24	44	57	72	81	74
22	59	38	30	24	.23	4.1	.10	44	58	74	80	74
23	57	37	30	24	.20	4.1	.30	45	59	74	79	74
24	56	37	30	23	.20	4.5	2.9	44	56	74	77	74
25	55	36	30	23	.22	4.6	6.6	43	56	75	76	74
26	55	36	29	23	.20	4.7	6.8	42	57	76	76	75
27	52	36	29	23	.22	4.9	6.8	41	56	77	76	76
28	52	36	28	23	.26	4.6	14	41	54	78	76	77
29	50	35	28	22	.22	4.7	26	41	53	82	78	77
30	49	35	28	22	---	4.6	27	41	59	81	75	78
31	48	---	28	22	---	4.8	---	42	---	80	76	---
TOTAL	2139	1196	939	752	177.85	115.07	137.64	1145	1502	2210	2449	2285
MEAN	69.0	39.9	30.3	24.3	6.13	3.71	4.59	36.9	50.1	71.3	79.0	76.2
MAX	95	46	34	27	21	4.9	27	45	59	82	84	81
MIN	48	35	18	22	.20	.19	.10	27	42	63	75	74
AC-FT	4240	2370	1860	1490	353	228	273	2270	2980	4380	4860	4530

CAL YR 1979 TOTAL 18435.00 MEAN 50.5 MAX 138 MIN 16 AC-FT 36570
WTR YR 1980 TOTAL 15047.56 MEAN 41.1 MAX 95 MIN .10 AC-FT 29850

06246500 OCEAN DRAIN AT OCEAN LAKE OUTLET, NEAR PAVILLION, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1947 to August 1951, April 1978 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
OCT												
02...	1545	93	1500	8.4	16.5	8.6	270	97	69	23	220	5.9
NOV												
05...	1035	44	1750	8.4	6.0	9.8	270	100	70	24	230	6.1
DEC												
14...	0910	32	1600	8.6	2.5	10.0	280	86	71	24	230	6.0
JAN												
17...	1400	25	1560	8.4	2.0	11.2	290	100	75	25	260	6.6
MAR												
10...	1045	3.7	1750	8.4	3.5	10.8	300	140	77	27	250	6.2
APR												
15...	1020	.26	3000	8.4	12.0	9.2	360	220	98	28	330	7.6
MAY												
02...	0925	28	2000	8.4	12.0	11.0	300	120	77	25	240	6.1
JUN												
04...	1045	42	1500	8.4	14.5	8.5	280	99	72	24	230	6.0
JUL												
09...	1030	68	1600	8.5	21.5	8.0	270	87	69	23	210	5.6
29...	1350	82	1200	8.6	25.0	8.8	260	75	66	22	220	6.0
AUG												
29...	1015	78	1600	8.5	18.0	7.9	210	80	51	20	190	5.7

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)
OCT												
02...	5.2	170	540	19	.6	9.2	989	1.35	248	.05	120	80
NOV												
05...	5.6	170	520	19	.6	9.4	982	1.34	117	.25	120	110
DEC												
14...	5.6	190	560	12	.6	8.8	1030	1.40	89.0	.03	300	<10
JAN												
17...	5.6	190	610	23	.7	9.0	1120	1.52	75.6	.04	160	40
MAR												
10...	6.1	160	500	16	.6	7.2	980	1.33	9.79	.03	110	<10
APR												
15...	5.0	140	620	27	.5	.3	1190	1.62	.84	.04	100	<10
MAY												
02...	5.3	180	560	18	.7	7.8	1070	1.46	82.0	7.4	110	<10
JUN												
04...	4.6	180	520	15	.5	7.5	982	1.34	111	.06	130	<10
JUL												
09...	5.6	180	540	12	.7	8.9	978	1.33	180	.00	100	<10
29...	5.1	180	550	17	.7	10	1000	1.36	221	.10	110	100
AUG												
29...	4.3	130	450	16	.5	11	822	1.12	173	.26	120	10

06246800 OCEAN DRAIN NEAR MIDVALE, WY

LOCATION.--Lat 43°12'41", long 108°28'33", in NE¼SW¼NW¼ sec.25, T.3 N., R.3 E., Fremont County, Hydrologic Unit 10080005, on right bank 1,000 ft (305 m) downstream from highline road, 1.0 mi (1.6 km) above mouth, 2.1 mi (3.4 km) east of Midvale, and 5.5 mi (8.8 km) downstream from Ocan Lake Outlet.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to September 1980.

GAGE.--Water-stage recorder. Altitude of gage is 5,140 ft (1,567 m), from topographic map.

REMARKS.--Records good except those for winter period and periods of no gage-height record, Dec. 13, 14, Dec. 17 to Jan. 12, Jan. 17-22, Feb. 2 to Mar. 10, Mar. 14 to Apr. 15, May 31 to June 4, Sept. 22-30, which are poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 167 ft³/s (4.73 m³/s) Oct. 1, gage height, 6.42 ft (1,957 m); minimum daily, 1.4 ft³/s (0.04 m³/s) Mar. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	49	32	27	21	2.6	6.2	41	56	90	113	106
2	120	48	31	26	21	1.5	6.4	43	57	88	123	104
3	102	47	30	26	21	1.4	7.0	35	58	96	127	112
4	99	45	29	26	21	1.5	7.2	35	59	98	121	109
5	96	44	27	25	20	3.2	7.2	35	58	99	115	110
6	93	44	27	25	20	6.4	7.4	40	59	105	109	105
7	92	43	27	24	18	6.2	7.4	44	60	104	105	108
8	88	42	31	24	14	6.2	7.2	38	64	98	107	111
9	86	41	27	24	7.4	6.2	6.7	40	63	99	112	111
10	84	42	26	24	4.6	6.0	4.0	42	70	98	123	107
11	82	40	26	24	5.8	5.8	2.5	53	75	98	128	112
12	80	40	26	24	5.3	5.3	2.2	61	76	97	137	120
13	78	39	25	25	5.8	5.8	1.8	51	74	97	122	122
14	76	39	24	25	7.0	5.8	1.8	51	74	95	112	117
15	74	38	22	25	3.0	5.8	1.9	51	79	95	108	117
16	73	38	22	25	1.9	6.0	3.1	53	80	96	124	107
17	71	38	21	25	1.5	6.0	3.4	56	83	96	132	107
18	70	38	19	25	1.6	6.0	3.4	57	78	97	140	110
19	69	36	18	25	4.0	6.0	3.4	58	86	104	133	116
20	68	36	16	24	3.5	6.0	3.4	56	92	102	117	112
21	66	39	18	24	2.3	6.0	8.3	56	91	99	103	91
22	66	38	23	24	1.8	6.0	13	56	87	102	105	84
23	64	38	28	24	1.8	6.0	19	53	88	104	103	79
24	62	37	30	23	1.9	6.0	18	51	86	98	99	78
25	61	36	30	23	1.8	6.2	23	53	88	99	99	78
26	60	36	29	23	1.9	6.4	23	51	93	102	99	78
27	57	36	29	23	1.9	6.6	22	52	94	115	97	78
28	55	35	28	23	2.0	6.6	23	52	95	107	98	78
29	53	34	28	22	2.3	6.6	33	57	83	125	99	80
30	52	33	28	22	---	6.3	37	55	86	116	101	80
31	51	---	28	22	---	6.2	---	56	---	104	104	---
TOTAL	2408	1189	805	751	225.1	168.6	312.9	1532	2292	3123	3515	3027
MEAN	77.7	39.6	26.0	24.2	7.76	5.44	10.4	49.4	76.4	101	113	101
MAX	160	49	32	27	21	6.6	37	61	95	125	140	122
MIN	51	33	16	22	1.5	1.4	1.8	35	56	88	97	78
AC-FT	4780	2360	1600	1490	446	334	621	3040	4550	6190	6970	6000

WTR YR 1980 TOTAL 19348.6 MEAN 52.9 MAX 160 MIN 1.4 AC-FT 38380

YELLOWSTONE RIVER BASIN

06246800 OCEAN DRAIN NEAR MIDVALE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to September 1980.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
03...	1330	14.0	--	101	71	19	90
NOV							
05...	1310	7.0	--	44	20	2.4	--
DEC							
14...	1010	.5	24	--	22	1.4	--
JAN							
17...	1130	.5	25	--	49	3.3	--
MAR							
10...	0930	1.5	--	4.0	203	2.2	--
APR							
15...	1145	11.0	--	1.9	114	.58	--
MAY							
02...	1035	13.0	--	43	176	20	--
JUN							
04...	0940	14.5	--	63	108	18	--
JUL							
09...	0910	23.0	--	105	125	35	--
29...	1230	23.0	--	121	89	29	--
AUG							
29...	1140	18.0	--	101	100	27	--

06253000 FIVEMILE CREEK NEAR SHOSHONI, WY

LOCATION.--Lat 43°13'20", long 108°13'06", in NW¼SW¼ sec.19, T.3 N., R.6 E., Fremont County, Hydrologic Unit 10080005, on right bank 1.2 mi (1.9 km) upstream from normal high-water line of Boysen Reservoir at elevation 4,725 ft (1,440 m) and 5.0 mi (8.0 km) west of Shoshoni.

DRAINAGE AREA.--418 mi^2 (1,083 km^2), of which 133 mi^2 (344 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to September 1942, August 1948 to current year.

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,750 ft (1,448 m), from topographic map. May 10, 1941, to Sept. 30, 1942, nonrecording gage at site 1.0 mi (1.6 km) downstream at different datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by regulation of Bureau of Indian Affairs reservoir system in the headwaters, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--33 years, 153 ft^3/s (4.333 m^3/s), 110,800 acre-ft/yr (137 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,390 ft^3/s (96.0 m^3/s) June 15, 1962, gage height, 7.85 ft (2.393 m), from rating curve extended above 2,500 ft^3/s (70.8 m^3/s); maximum gage height, 9.61 ft (2.929 m) Dec. 27, 1954 (backwater from ice); minimum daily discharge, 1.0 ft^3/s (0.028 m^3/s) Jan. 4-6, 1942.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 24, 1923, discharge, 3,500 ft^3/s (99.1 m^3/s), estimated by Water and Power Resources Service, exceeded all floods at this location during period of record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 463 ft^3/s (13.1 m^3/s) June 24, gage height, 3.81 ft (1.161 m); minimum daily, 35 ft^3/s (0.99 m^3/s) Jan. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	330	96	58	50	42	38	40	168	245	373	344	350
2	280	92	62	50	42	37	41	173	256	364	348	357
3	194	92	66	50	42	37	41	163	250	363	369	355
4	173	88	67	50	42	36	41	159	247	367	370	335
5	168	88	66	49	41	37	42	171	245	361	368	329
6	161	88	64	49	40	38	42	168	247	375	327	338
7	154	88	66	48	40	39	42	185	277	395	280	340
8	148	88	66	48	40	39	40	180	262	400	304	332
9	143	85	71	48	40	39	41	192	262	400	311	337
10	143	81	66	48	40	40	40	201	268	390	308	356
11	137	85	60	48	40	40	39	228	262	370	329	346
12	133	77	55	49	39	39	38	292	300	370	382	337
13	129	77	56	50	39	38	38	240	303	370	429	342
14	127	77	60	50	39	39	40	225	302	370	412	342
15	126	77	55	50	37	41	41	243	278	360	406	353
16	125	77	52	50	36	40	46	252	288	360	415	379
17	120	75	51	50	37	36	46	264	304	360	418	377
18	120	74	49	50	38	38	73	277	324	360	412	365
19	120	73	49	48	38	41	101	295	310	360	407	362
20	117	70	47	48	39	41	124	292	317	380	385	345
21	117	67	47	47	39	41	129	274	330	400	365	327
22	117	65	48	47	40	42	114	243	378	400	364	332
23	111	65	54	47	41	41	141	292	386	400	357	329
24	110	67	56	47	40	41	124	283	403	400	357	314
25	105	69	56	46	39	41	101	289	373	390	351	304
26	104	69	56	45	39	40	99	286	366	390	343	315
27	104	68	54	37	40	40	107	261	380	390	311	303
28	100	66	54	35	42	40	105	301	395	410	302	299
29	98	57	54	37	40	40	122	253	350	410	319	318
30	96	55	52	39	---	40	152	242	374	364	328	319
31	96	---	52	41	---	41	---	253	---	352	344	---
TOTAL	4306	2296	1769	1451	1151	1220	2190	7345	9282	11754	11065	10137
MEAN	139	76.5	57.1	46.8	39.7	39.4	73.0	237	309	379	357	338
MAX	330	96	71	50	42	42	152	301	403	410	429	379
MIN	96	55	47	35	36	36	38	159	245	352	280	299
AC-FT	8540	4550	3510	2880	2280	2420	4340	14570	18410	23310	21950	20110

CAL YR 1979 TOTAL 63060 MEAN 173 MAX 520 MIN 35 AC-FT 125100
WTR YR 1980 TOTAL 63966 MEAN 175 MAX 429 MIN 35 AC-FT 126900

06253000 FIVEMILE CREEK NEAR SHOSHONI, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 12...	1240	--	135	8.6	12.5	400	180	120	28
NOV 06...	0935	--	83	8.5	5.0	410	180	110	33
DEC 03...	1125	66	--	8.3	.0	470	210	130	35
JAN 09...	1115	48	--	8.2	.0	570	280	170	36
FEB 28...	1120	42	--	8.3	.0	790	500	200	70
APR 03...	1030	--	41	8.4	4.0	720	480	190	57
29...	1045	--	129	8.4	14.0	320	130	92	21
MAY 30...	1350	--	245	8.5	18.0	270	120	94	9.2
JUN 25...	1205	--	380	8.3	21.0	150	19	44	10
JUL 29...	1000	--	380	8.4	19.0	220	64	64	13
AUG 27...	1030	--	313	8.3	16.5	240	84	62	21

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 12...	300	6.4	4.8	270	0	220	730	22	.8
NOV 06...	280	6.0	4.0	280	0	230	700	22	1.0
DEC 03...	320	6.4	5.3	320	0	260	790	22	1.0
JAN 09...	350	6.4	4.5	360	0	300	950	27	.9
FEB 28...	340	5.3	7.3	360	0	300	1200	31	.9
APR 03...	360	5.9	6.0	290	0	240	1200	31	.9
29...	150	3.7	2.8	230	0	190	430	15	.6
MAY 30...	130	3.4	4.1	180	0	150	360	11	.6
JUN 25...	81	2.9	2.9	160	0	130	180	6.5	.6
JUL 29...	110	3.3	2.9	190	0	160	280	7.2	.6
AUG 27...	130	3.6	2.2	190	0	160	340	8.4	.7

06253000 FIVEMILE CREEK NEAR SHOSHONI, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT 12...	7.0	1340	1.82	488	1.7	.030	67	24
NOV 06...	5.3	1300	1.77	291	2.5	.000	28	6.3
DEC 03...	6.9	1470	2.00	262	2.5	.010	58	10
JAN 09...	8.6	1730	2.35	224	2.8	.030	44	5.7
FEB 28...	6.3	2040	2.77	231	4.1	.090	168	19
APR 03...	7.2	2000	2.72	221	3.2	.030	66	7.3
29...	9.0	830	1.13	289	.94	.140	279	97
MAY 30...	10	710	.97	470	.59	.100	204	135
JUN 25...	12	410	.56	421	.46	.180	271	278
JUL 29...	9.1	580	.79	595	1.1	.200	282	289
AUG 27...	9.4	670	.91	566	.87	.110	160	135

06256900 DRY CREEK NEAR BONNEVILLE, WY

LOCATION.--Lat 43°16'52", long 107°54'45", in NW¼NW¼ sec.8, T.38 N., R.92 W., Fremont County, Hydrologic Unit 10080006, on left bank 0.4 mi (0.6 km) upstream from mouth and 8.0 mi (12.9 km) east of Bonneville.

DRAINAGE AREA.--52.6 mi² (136 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,010 ft (1,527 m), from topographic map.

REMARKS.--Records fair. Diversions for irrigation of about 200 acres (81 hm²) above station.

AVERAGE DISCHARGE.--15 years, 2.85 ft³/s (0.081 m³/s), 2,060 acre-ft/yr (2.55 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,650 ft³/s (46.7 m³/s) June 17, 1967, gage height, 12.41 ft (3.783 m), from rating curve extended above 160 ft³/s (4.53 m³/s) on basis of slope-area measurement of peak flow; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 50 ft³/s (1.42 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 17	2030	*54	1.53	4.97	1.515

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	5.7	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	4.9	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	4.9	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	3.2	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.54	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.24	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.18	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.13	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.31	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	2.3	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	3.0	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	4.0	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	9.8	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	39	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	36	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	32	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	26	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	16	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	7.2	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	2.8	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	9.2	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	9.2	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	7.6	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	5.7	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.03	4.0	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	4.6	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	9.8	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	7.1	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.03	235.61	19.79	.00	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.001	7.60	.66	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.03	39	5.7	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.06	467	39	.00	.00	.00

CAL YR 1979 TOTAL 33.58 MEAN .092 MAX 8.6 MIN .00 AC-FT 67
WTR YR 1980 TOTAL 255.43 MEAN .70 MAX 39 MIN .00 AC-FT 507

06256900 DRY CREEK NEAR BONNEVILLE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: September 1965 to current year.

REMARKS.--No flow observed Feb. 28, July 10, 28.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, not determined; minimum daily mean, no flow for many days each year.
SEDIMENT LOADS: Maximum daily, 19,000 tons (17,200 tonnes) June 15, 1967; minimum daily, 0 tons on many days each year.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, not determined; minimum daily mean, no flow for many days during year.
SEDIMENT LOADS: Maximum daily, 215 tons (213 tonnes) May 17; minimum daily, 0 tons on many days during year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
MAY												
14...	1350	4.6	440	8.1	16.0	150	37	45	8.4	20	.7	2.4
29...	1020	3.0	560	8.1	11.0	200	65	60	11	24	.7	1.7

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
MAY											
14...	110	57	2.0	.2	17	218	.30	2.71	.03	.270	.83
29...	130	120	2.8	.3	18	316	.43	2.56	.03	.070	.21

MONTHLY AND ANNUAL SUMMARY OF WATER AND SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

MONTH	DISCHARGE (CFS-DAYS	RUNOFF (ACRE-FEET)	SUSPENDED SEDIMENT					
			DISCHARGE (TONS)	DAILY DISCHARGE (TONS)			CONCENTRATION (MG/L)	
				MEAN	MAXIMUM	MINIMUM	WEIGHTED MEAN	MAXIMUM OBSERVED
OCTOBER 1979...	0	0	0	0	0	0		
NOVEMBER.......	0	0	0	0	0	0		
DECEMBER.......	0	0	0	0	0	0		
JANUARY 1980...	0	0	0	0	0	0		
FEBRUARY.......	0	0	0	0	0	0		
MARCH..........	0	0	0	0	0	0		
APRIL..........	0.03	0.06	<0.005	--	<0.005	0		
MAY............	235.61	467	738.26	23.8	215	0		
JUNE...........	19.79	39.3	17.02	0.57	5.6	0		
JULY...........	0	0	0	0	0	0		
AUGUST.........	0	0	0	0	0	0		
SEPTEMBER......	0	0	0	0	0	0		
WATER YEAR...	255.43	507	755.28	2.06	215	0		

06256900 DRY CREEK NEAR BONNEVILLE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPER- ATURE, WATER (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM
MAY										
14...	1350	16.0	4.6	490	6.1	74	89	99	100	3
29...	1020	11.0	3.0	62	.50	--	--	--	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
MAY									
14...	5	11	33	55	75	89	97	99	100
29...	--	--	--	--	--	--	--	--	--

06258000 MUDDY CREEK NEAR SHOSHONI, WY

LOCATION.--Lat 43°17'10", long 108°16'30", in NE¼NW¼ sec.34, T.4 N., R.5 E., Fremont County, Hydrologic Unit 10080005, on left bank 2.5 mi (4.0 km) upstream from normal high-water line of Boysen Reservoir at elevation 4,725 ft (1,440 m) and 9.0 mi (14.5 km) northwest of Shoshoni.

DRAINAGE AREA.--332 mi^2 (860 km^2).

PERIOD OF RECORD.--March 1949 to September 1968, October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,780 ft (1,457 m), from topographic map. Prior to May 13, 1949, water-stage recorder at site 50 ft (15 m) upstream at different datum.

REMARKS.--Records good except those for winter periods and periods of no gage-height record, Oct. 1-12, Apr. 10-29, May 31 to July 7, Sept. 20-30, which are poor. Natural flow of stream affected by regulation of Bureau of Indian Affairs reservoir system in the headwaters, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--27 years (water years 1950-68, 1973-80), 20.4 ft^3/s (0.578 m^3/s), 14,780 acre-ft/yr (18.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,430 ft^3/s (40.5 m^3/s) July 22, 1951, gage height, 7.50 ft (2.286 m); no flow at times in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 24, 1923, reached a discharge of 16,300 ft^3/s (462 m^3/s), from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 92 ft^3/s (2.60 m^3/s) May 19, gage height, 2.55 ft (0.777 m); maximum gage height, 3.68 ft (1.121 m) Feb. 25 (backwater from ice); minimum daily discharge, 5.4 ft^3/s (0.207 m^3/s) Jan. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	9.2	6.0	8.2	7.6	13	12	29	36	36	33	31
2	18	9.5	6.0	8.0	8.0	12	12	24	36	36	37	31
3	16	10	6.0	8.0	8.4	12	14	22	35	35	41	32
4	13	11	6.0	7.8	8.6	12	17	18	35	35	40	31
5	11	11	6.2	7.8	8.8	12	17	21	35	35	42	34
6	11	13	6.6	7.8	8.4	13	18	19	36	37	47	31
7	10	12	7.0	8.0	8.2	14	18	16	40	37	38	29
8	10	11	7.2	8.2	8.2	13	15	30	38	35	27	29
9	10	11	7.2	8.6	8.2	12	12	26	36	32	29	36
10	9.7	9.6	7.2	8.8	8.4	12	11	19	37	31	32	38
11	9.8	9.4	7.0	8.8	8.6	13	11	37	37	33	34	31
12	10	9.4	7.0	9.0	8.6	14	10	47	43	31	36	33
13	9.2	9.4	7.2	9.0	8.4	13	11	47	46	34	39	35
14	10	9.4	7.6	9.0	8.4	13	12	30	40	35	37	34
15	9.6	9.4	7.8	8.8	8.2	14	12	30	37	33	38	39
16	12	9.4	8.0	8.4	8.2	14	13	28	37	32	48	34
17	10	9.2	8.0	8.2	8.2	13	13	30	39	32	46	31
18	10	9.0	8.0	8.0	8.4	13	14	30	40	32	40	33
19	10	8.8	7.8	7.8	8.4	14	18	44	34	35	39	33
20	10	8.4	7.6	7.6	8.6	14	20	47	32	33	27	32
21	10	8.2	7.6	7.4	10	14	22	34	33	33	25	30
22	10	7.8	7.8	7.4	12	14	21	32	34	32	23	30
23	10	8.0	8.2	7.2	14	14	22	28	35	31	23	30
24	10	8.2	8.8	7.2	13	14	20	32	37	34	26	29
25	9.6	8.4	9.0	6.6	12	13	17	31	34	37	25	28
26	9.6	8.4	9.0	6.2	12	13	16	31	35	41	23	29
27	8.8	8.0	8.8	6.0	12	13	16	37	38	44	22	28
28	10	7.2	8.6	5.4	13	12	18	34	40	45	27	28
29	9.6	6.4	8.2	6.0	13	14	22	34	36	39	34	29
30	9.6	6.0	8.2	6.4	---	13	29	37	34	32	35	29
31	8.9	---	8.2	6.8	---	14	---	37	---	32	34	---
TOTAL	335.4	275.7	233.8	238.4	277.8	408	483	961	1105	1079	1047	947
MEAN	10.8	9.19	7.54	7.69	9.58	13.2	16.1	31.0	36.8	34.8	33.8	31.6
MAX	20	13	9.0	9.0	14	14	29	47	46	45	48	39
MIN	8.8	6.0	6.0	5.4	7.6	12	10	16	32	31	22	28
AC-FT	665	547	464	473	551	809	958	1910	2190	2140	2080	1880

CAL YR 1979 TOTAL 8264.6 MEAN 22.6 MAX 70 MIN 1.2 AC-FT 16390
WTR YR 1980 TOTAL 7391.1 MEAN 20.2 MAX 48 MIN 5.4 AC-FT 14660

06258010 COTTONWOOD DRAIN NEAR SHOSHONI, WY

LOCATION.--Lat 43°18'08", long 108°16'52", in NW¼NW¼NW¼ sec.27, T.4 N., R.5 E., Fremont County, Hydrologic Unit 10080005, at concrete drop structure, 1.3 mi (2.1 km) upstream from high-water line of Lake Cameahwait, and 9.6 mi (15.4 km) northwest of Shoshoni.

PERIOD OF RECORD.--June 1979 to current year.

REMARKS.--No flow observed Jan. 9.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
12...	1500	12.5	1.0	5	.01	95
NOV						
06...	1135	4.0	.94	18	.05	--
DEC						
03...	1340	.0	E.50	14	--	--
APR						
03...	1345	2.0	.68	10	.02	--
29...	0825	14.5	51	420	58	56
MAY						
30...	1240	15.5	11	74	2.2	88
JUN						
25...	0900	19.5	29	138	11	65
JUL						
28...	1500	25.0	17	29	1.3	81
AUG						
27...	1430	21.0	23	88	5.5	40

E-Estimate.

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY

LOCATION.--Lat 43°25'30", long 108°10'42", in NW¼SW¼ sec.9, T.5 N., R.6 E., Fremont County, Hydrologic Unit 10080005, on right bank 0.6 mi (1.0 km) downstream from Boysen Dam and 13 mi (21 km) north of Shoshoni.

DRAINAGE AREA.--7,701 mi^2 (19,946 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,608.58 ft (1,404.695 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Boysen Reservoir (station number 06258900) since October 1951. Natural flow also affected by Bull Lake, Pilot Butte Reservoir, and several small reservoirs, combined capacity, 190,000 acre-ft (234 hm^3), and diversions for irrigation of about 196,000 acres (793 km^2) above station.

AVERAGE DISCHARGE.--29 years, 1,426 ft^3/s (40.38 m^3/s), 1,033,000 acre-ft/yr (1,274 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft^3/s (382 m^3/s) July 7, 1967, gage height, 13.35 ft (4.069 m); minimum daily, 4.7 ft^3/s (0.13 m^3/s) Apr. 3, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,520 ft^3/s (185 m^3/s) July 5, gage height, 9.58 ft (2.920 m); minimum daily, 650 ft^3/s (18.4 m^3/s) Oct. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	891	818	882	905	881	909	1140	1120	2010	5260	1660	1690
2	896	826	880	907	885	909	1140	1120	2020	5210	1170	1690
3	800	834	877	906	888	915	1140	1140	2190	5610	1170	1690
4	698	839	878	904	893	917	1140	1140	2360	5980	1200	1680
5	699	841	887	904	896	821	1140	1130	2320	6330	1550	1680
6	698	840	863	913	802	887	1140	1140	2370	6420	2140	1680
7	697	836	866	908	846	893	1140	1140	2360	6390	2150	1680
8	675	838	858	913	890	893	1140	1220	2350	6300	2130	1680
9	699	846	857	906	890	892	1140	1280	2340	6280	2120	1680
10	705	840	855	909	889	937	1140	1290	2330	5950	2130	1680
11	710	847	851	906	889	892	1150	1280	2320	5070	2130	1680
12	712	842	860	905	854	896	1130	1290	2320	4570	2130	1680
13	710	848	860	907	891	992	1130	1200	2330	4030	2130	1680
14	709	848	862	907	888	1140	1140	1160	2340	3690	2130	1680
15	650	847	872	901	888	1140	1140	1160	2330	3390	2120	1680
16	822	844	864	901	886	1140	1010	1160	2340	2850	2120	1680
17	815	836	883	890	885	1140	1010	1160	2330	2880	2120	1680
18	815	830	907	899	887	1140	1140	1160	2330	2640	2110	1670
19	814	835	907	891	889	1140	1130	1160	2590	2230	2130	1550
20	820	841	908	891	891	1140	1130	1170	2820	2250	2120	1480
21	822	830	909	894	892	1140	1140	1170	3000	2250	1800	1480
22	822	832	903	895	895	1140	1140	1230	3200	2260	1660	1480
23	825	828	893	867	896	1130	1140	1180	3510	2190	1670	1480
24	826	825	902	900	897	1140	1120	1190	4020	2220	1670	1480
25	827	824	912	899	885	1140	1150	1190	4810	2210	1670	1480
26	827	821	909	884	888	1140	1140	1200	5270	2210	1670	1480
27	825	814	908	893	892	1140	1150	1210	5280	2180	1680	1480
28	834	808	906	888	893	1150	1150	1230	5420	2210	1680	1480
29	836	807	901	883	903	1140	1150	1650	5510	2210	1690	1480
30	824	845	901	883	---	1140	1130	2010	5510	2210	1680	1470
31	819	---	902	881	---	1150	---	2020	---	2200	1690	---
TOTAL	24122	25010	27423	27840	25649	32283	33920	38900	92230	117680	57220	48080
MEAN	778	834	885	898	884	1041	1131	1255	3074	3796	1846	1603
MAX	896	848	912	913	903	1150	1150	2020	5510	6420	2150	1690
MIN	650	807	851	867	802	821	1010	1120	2010	2180	1170	1470
AC-FT	47850	49610	54390	55220	50870	64030	67280	77160	182900	233400	113500	95370

CAL YR 1979 TOTAL 441103 MEAN 1209 MAX 2260 MIN 650 AC-FT 874900
WTR YR 1980 TOTAL 550357 MEAN 1504 MAX 6420 MIN 650 AC-FT 1092000

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

LOCATION.--Daily water temperatures and samples for specific conductance collected at tailrace of powerplant at Boysen Dam, 0.6 mi (1.0 km) upstream from discharge station.

PERIOD OF RECORD.--Water years 1954, 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1953 to September 1954, December 1960 to current year.
WATER TEMPERATURES: December 1953 to September 1954, December 1960 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,380 micromhos June 18, 1954; minimum daily, 367 micromhos July 1, 1976.
WATER TEMPERATURES: Maximum, 22.0°C on several days in 1961, 1970, 1971; minimum, 0.0°C Jan. 6-9, 1976.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 884 micromhos May 11; minimum daily, 465 micromhos Aug. 11.
WATER TEMPERATURES: Maximum, 19.0°C July 31, Aug. 1-3, 6, 9, 11-12, 15, 17-18; minimum, 2.0°C on many days during December to February.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT												
02...	1230	895	670	8.4	18.0	2	7.8	7	--	210	77	57
NOV												
14...	1030	849	840	8.4	8.0	3	10.0	K1	47	200	57	57
DEC												
11...	1130	849	850	8.2	2.5	4	11.1	<1	K10	230	82	60
JAN												
14...	1200	906	900	8.6	1.5	2	11.8	<1	<1	230	70	59
FEB												
27...	1200	895	860	8.1	2.5	--	10.2	--	--	240	81	62
APR												
07...	1000	1140	840	8.4	4.0	1	10.8	<1	<1	240	89	61
MAY												
05...	1000	1160	920	8.4	9.0	1	11.0	<1	<1	250	95	62
JUN												
03...	1000	2030	820	8.3	14.0	2	9.0	K1	K7	210	71	53
JUL												
01...	1130	5120	560	8.1	18.0	3	7.1	K1	K1	170	52	44
AUG												
04...	1100	1200	500	8.5	19.0	3	7.9	--	--	150	41	39
SEP												
02...	1000	1690	495	8.3	20.5	--	8.0	K7	K5	160	46	41

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT											
02...	16	64	1.9	3.0	150	6	130	200	8.6	.4	9.5
NOV											
14...	17	--	--	2.8	170	2	140	210	6.7	.5	4.6
DEC											
11...	20	73	2.1	3.0	170	0	150	210	8.0	.4	7.0
JAN											
14...	20	71	2.0	3.2	180	9	160	210	7.9	.4	6.9
FEB											
27...	21	73	2.0	2.9	170	8	160	220	8.1	.4	6.2
APR											
07...	21	72	2.0	3.0	200	0	150	230	8.2	.4	7.5
MAY											
05...	22	70	1.9	2.7	200	0	150	220	8.2	.3	8.2
JUN											
03...	19	64	1.9	2.8	170	0	140	180	7.4	.3	8.8
JUL											
01...	15	49	1.6	2.5	140	0	120	150	6.3	.3	9.8
AUG											
04...	13	39	1.4	2.6	130	0	110	130	5.8	.3	9.1
SEP											
02...	13	45	1.6	2.4	130	0	110	140	5.6	.3	9.4

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)
OCT 02...	--	447	.61	1080	--	1.3	--	--	--	--	--
NOV 14...	--	--	--	1040	--	.60	--	--	--	--	--
DEC 11...	469	472	.64	1080	.19	.15	.050	.060	.06	.08	.45
JAN 14...	503	477	.65	1170	.10	.13	.040	.010	.05	.01	.96
FEB 27...	508	490	.67	1180	.04	.04	.000	.000	.00	.00	.41
APR 07...	524	494	.67	1520	.12	.13	.100	.000	.12	.00	.54
MAY 05...	516	484	.66	1520	.08	.07	.100	.060	.12	.08	.34
JUN 03...	455	420	.57	2300	.15	.12	.100	.070	.12	.09	.62
JUL 01...	363	349	.47	4820	.06	.07	.000	.000	.00	.00	.56
AUG 04...	316	305	.41	988	.00	.01	.000	.000	.00	.00	.62
SEP 02...	336	325	.44	1480	.01	.52	.000	.000	.00	.00	.86

DATE	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 02...	--	--	--	--	--	--	--	.080	--	--	--
NOV 14...	--	--	--	--	--	--	--	.030	--	--	--
DEC 11...	.44	.50	.00	.50	.69	3.1	.65	.010	.03	.010	--
JAN 14...	1.1	1.0	.00	1.1	1.1	4.9	1.2	.010	.03	.010	5.7
FEB 27...	.38	.41	.03	.38	.45	2.0	.42	.030	.09	.000	6.6
APR 07...	.60	.64	.04	.60	.76	3.4	.73	.040	.12	.010	4.1
MAY 05...	.38	.44	.00	.44	.52	2.3	.51	.010	.03	.010	6.6
JUN 03...	.15	.72	.50	.22	.87	3.9	.34	.000	.09	.020	--
JUL 01...	.93	.56	.00	.93	.62	2.7	1.0	.040	.12	.010	5.4
AUG 04...	.32	.62	.30	.32	.62	2.7	.33	.060	.18	.020	5.9
SEP 02...	.42	.86	.44	.42	.87	3.9	.94	.030	.09	.020	--

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 02...	--	--	--	--	--	--	--	--	--	--	--
NOV 14...	--	--	--	--	--	--	--	--	--	--	--
DEC 11...	--	.3	--	--	--	--	--	--	4	9.2	--
JAN 14...	--	--	--	--	--	--	--	--	7	17	--
FEB 27...	--	--	--	--	--	--	--	--	4	9.7	--
APR 07...	--	--	680	--	--	--	--	--	4	12	--
MAY 05...	--	--	--	--	--	--	--	--	4	13	--
JUN 03...	7.3	.4	2400	31.5	34.5	521	5.76	2.90	5	27	82
JUL 01...	--	.9	770	--	--	--	--	--	12	166	--
AUG 04...	--	--	40000	--	--	--	--	--	5	16	--
SEP 02...	5.1	.1	64000	--	--	--	--	--	5	23	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)
DEC 11...	1130	2	0	2	400	300	70	1	0	<1	0
JAN 14...	1200	--	--	--	--	--	--	--	--	--	--
APR 07...	1000	--	--	--	--	--	--	--	--	--	--
JUN 03...	1000	2	0	2	100	40	60	1	0	3	0
JUL 01...	1130	--	--	--	--	--	--	--	--	--	--
SEP 02...	1000	4	0	4	0	0	60	1	--	<1	20

DATE	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
DEC 11...	0	0	3	0	<3	1	0	5	150	130	20
JAN 14...	--	--	--	--	--	--	--	--	--	--	--
APR 07...	--	--	--	--	--	--	--	--	--	--	--
JUN 03...	0	0	1	--	<3	6	0	6	100	--	<10
JUL 01...	--	--	--	--	--	--	--	--	--	--	--
SEP 02...	0	20	0	--	<3	6	0	6	170	--	<10

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)
DEC 11...	8	7	1	60	50	10	.0	.0	.0	7	6
JAN 14...	--	--	--	--	--	--	--	--	--	--	--
APR 07...	--	--	--	--	--	--	--	--	--	--	--
JUN 03...	5	0	6	20	20	3	.0	.0	.0	6	2
JUL 01...	--	--	--	--	--	--	--	--	--	--	--
SEP 02...	2	2	0	10	8	2	.0	.0	.0	14	11

DATE	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC 11...	1	1	0	1	0	0	0	130	120	6
JAN 14...	--	--	--	--	0	--	--	--	--	--
APR 07...	--	--	--	--	0	--	--	--	--	--
JUN 03...	4	1	0	1	0	0	0	10	--	<3
JUL 01...	--	--	--	--	0	--	--	--	--	--
SEP 02...	3	0	0	1	0	0	0	40	--	<3

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
JAN 14...	1200	10	<.4	6.5	.5	6.3	.6	.11	9.3	6.8	<.3

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE, WATER (DEG C)	PCB TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
24...	0945	820	13.0	.00	0	--	.0	.00	.0	.0	0
MAY											
20...	1530	1180	12.5	.00	0	.0	.0	.00	.0	.0	0
SEP											
02...	1000	1690	20.5	--	0	--	.0	--	.0	--	0

DATE	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
24...	.00	.1	.00	.1	.00	.0	.00	.00	.0	.00	.0
MAY											
20...	.00	.0	.00	.0	.00	.0	.00	.00	.0	.00	.0
SEP											
02...	--	.0	--	.0	--	.0	--	--	.2	--	.0

DATE	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)
OCT										
24...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00
MAY										
20...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00
SEP										
02...	--	.0	--	--	.0	--	.0	--	.0	--

DATE	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL (UG/L)
OCT										
24...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0
MAY										
20...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0
SEP										
02...	--	.0	--	--	--	.0	--	--	.00	--

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT										
24...	0	.00	.09	0	.00	.0	.00	0	.00	.0
MAY										
20...	0	.00	--	<0	.00	<.0	.00	0	.00	.0
SEP										
02...	0	--	--	0	--	.0	--	0	--	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
OCT				
24...	.05	.0	.00	.0
MAY				
20...	.04	.0	.00	.0
SEP				
02...	--	.0	--	.0

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	650	675	686	701	730	727	741	771	674	575	477	495
2	650	675	692	710	729	730	746	740	668	556	467	495
3	650	675	681	710	733	734	743	740	674	550	477	497
4	647	659	700	716	727	733	740	771	681	550	477	495
5	647	675	698	704	733	734	737	740	679	545	476	495
6	650	681	695	707	735	727	736	745	684	545	482	495
7	653	675	698	719	729	735	746	774	702	561	532	495
8	659	675	695	719	730	731	743	740	655	556	498	497
9	656	681	689	719	730	743	738	759	660	600	465	514
10	661	678	692	713	725	737	756	765	655	536	519	507
11	658	681	689	719	725	743	798	884	681	526	465	507
12	650	681	689	728	728	740	747	751	657	554	476	514
13	664	681	692	716	731	734	742	737	626	524	492	510
14	653	676	697	716	722	740	733	754	689	484	500	516
15	658	679	697	722	730	740	745	763	668	570	479	507
16	661	673	697	712	720	737	805	740	652	496	479	518
17	667	679	697	721	728	740	765	758	634	515	473	518
18	664	679	703	718	734	737	759	761	637	524	473	518
19	664	676	708	721	728	737	759	733	631	509	536	525
20	667	688	702	721	731	737	736	738	626	600	484	520
21	667	685	719	709	731	737	736	733	704	511	484	524
22	664	676	710	718	731	737	862	755	626	490	479	526
23	659	686	716	725	731	729	765	735	608	496	506	529
24	673	684	713	727	736	740	730	760	611	499	484	526
25	667	684	708	720	729	735	730	724	621	483	523	526
26	667	686	713	726	734	738	724	691	624	478	490	531
27	662	686	719	723	737	735	736	688	613	477	495	531
28	667	686	728	726	743	746	736	677	603	482	490	535
29	675	686	704	726	726	735	738	677	588	479	495	547
30	670	686	695	732	---	736	738	679	553	474	495	547
31	678	---	698	724	---	744	---	674	---	479	495	---
MEAN	661	680	701	718	730	736	750	741	646	523	489	515

WTR YR 1980 MEAN 657 MAX 884 MIN 465

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	10.0	4.0	2.0	2.0	3.0	4.0	8.0	13.0	16.0	19.0	17.0
2	16.0	10.0	4.0	2.0	2.0	3.0	4.0	8.0	13.0	17.0	19.0	17.0
3	16.0	10.0	4.0	2.0	2.0	3.0	4.0	8.0	14.0	17.0	19.0	17.0
4	15.0	10.0	4.0	2.0	2.0	3.0	4.0	8.0	14.0	17.0	18.0	17.0
5	15.0	10.0	4.0	2.0	2.0	3.0	5.0	8.0	14.0	17.0	18.0	17.0
6	15.0	10.0	3.0	2.0	3.0	4.0	5.0	9.0	14.0	17.0	19.0	17.0
7	15.0	10.0	4.0	2.0	2.0	4.0	5.0	9.0	15.0	17.0	17.0	17.0
8	15.0	10.0	3.0	2.0	2.0	4.0	5.0	9.0	14.0	17.0	18.0	17.0
9	15.0	10.0	3.0	2.0	2.0	4.0	5.0	10.0	14.0	17.0	19.0	17.0
10	15.0	10.0	3.0	2.0	2.0	4.0	5.0	10.0	15.0	17.0	17.0	17.0
11	15.0	8.0	3.0	2.0	2.0	4.0	5.0	10.0	15.0	17.0	19.0	18.0
12	15.0	8.0	2.0	2.0	2.0	4.0	4.0	10.0	15.0	17.0	19.0	17.0
13	14.0	8.0	2.0	3.0	2.0	4.0	5.0	10.0	15.0	17.0	18.0	17.0
14	14.0	8.0	5.0	2.0	2.0	4.0	5.0	10.0	16.0	17.0	18.0	17.0
15	14.0	8.0	5.0	2.0	2.0	4.0	5.0	10.0	13.0	17.0	19.0	17.0
16	14.0	8.0	2.0	2.0	2.0	4.0	5.0	10.0	15.0	17.0	18.0	16.0
17	14.0	8.0	2.0	2.0	2.0	4.0	5.0	10.0	15.0	17.0	19.0	17.0
18	14.0	7.0	2.0	2.0	2.0	4.0	6.0	10.0	15.0	17.0	19.0	16.0
19	14.0	7.0	2.0	2.0	2.0	4.0	6.0	11.0	15.0	19.0	18.0	16.0
20	13.0	6.0	2.0	2.0	2.0	4.0	7.0	11.0	16.0	17.0	17.0	17.0
21	14.0	6.0	4.0	2.0	2.0	4.0	7.0	11.0	15.0	17.0	17.0	17.0
22	13.0	6.0	2.0	2.0	3.0	4.0	7.0	11.0	15.0	17.0	17.0	15.0
23	13.0	6.0	2.0	2.0	3.0	4.0	6.0	11.0	15.0	18.0	17.0	15.0
24	13.0	7.0	2.0	2.0	3.0	4.0	6.0	12.0	16.0	18.0	17.0	15.0
25	13.0	5.0	2.0	2.0	4.0	4.0	7.0	13.0	16.0	19.0	17.0	15.0
26	13.0	6.0	2.0	2.0	3.0	4.0	9.0	14.0	16.0	19.0	17.0	15.0
27	12.0	4.0	2.0	2.0	3.0	4.0	9.0	13.0	16.0	18.0	17.0	15.0
28	12.0	4.0	2.0	2.0	3.0	4.0	8.0	13.0	16.0	18.0	17.0	15.0
29	12.0	4.0	2.0	2.0	3.0	4.0	8.0	13.0	16.0	18.0	17.0	15.0
30	11.0	4.0	2.0	2.0	---	4.0	8.0	13.0	16.0	18.0	17.0	15.0
31	11.0	---	2.0	2.0	---	4.0	---	13.0	---	19.0	17.0	---
MEAN	14.0	7.5	3.0	2.0	2.5	4.0	6.0	10.5	15.0	17.5	18.0	16.5

WTR YR 1980 MEAN 9.5 MAX 19.0 MIN 2.0

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	APR 7,80		JUN 3,80		JUL 1,80		AUG 4,80		SEP 2,80	
TIME	1000		1000		1130		1100		1000	
TOTAL CELLS/ML	680		2400		770		40000		64000	
DIVERSITY: DIVISION	1.3		1.4		1.2		0.0		0.0	
.CLASS	1.3		1.4		1.2		0.0		0.0	
..ORDER	1.4		1.4		2.1		0.1		0.1	
...FAMILY	2.0		1.7		2.2		0.1		0.1	
....GENUS	2.0		1.7		2.2		0.1		0.1	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	1100#	46	13	2	--	-	--	-
...OOCYSTACEAE										
....OOCYSTIS	--	-	91	4	--	-	--	-	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	--	-	--	-	--	-	*	0	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	26	4	--	-	--	-	*	0	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	120#	17	250	10	52	7	--	-	*	0
....STEPHANODISCUS	--	-	--	-	--	-	*	0	--	-
..PENNALES										
...ACHNANTHACEAE										
....RHOICOSPHENIA	13	2	--	-	13	2	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	130#	17	--	-	--	-
...NAVICULACEAE										
....NAVICULA	--	-	--	-	13	2	*	0	*	0
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	370#	55	890#	36	39	5	*	0	*	0
...CRYPTOMONADACEAE										
....CRYPTOMONAS	100#	15	91	4	--	-	*	0	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	310#	40	*	0	960	1
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENOPSIS	--	-	--	-	--	-	260	1	--	-
....APHANIZOMENON	--	-	--	-	--	-	39000#	99	63000#	98
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	210#	27	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	13	2	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...GLENODINIACEAE										
....GLENODINIUM	39	6	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06260000 SOUTH FORK OWL CREEK NEAR ANCHOR, WY

LOCATION.--Lat 43°40'01", long 108°51'18", in sec.28, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, on left bank 0.2 mi (0.3 km) upstream from normal high-water line of Anchor Reservoir, 1.6 mi (2.6 km) upstream from Anchor Dam, 2.6 mi (4.2 km) southwest of Anchor, and 33 mi (53 km) west of Thermopolis.

DRAINAGE AREA.--85.5 mi² (221 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to May 1932, August 1939 to September 1943 (no winter records except 1941 water year), April 1959 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder and concrete flume. Datum of gage is 6,453.11 ft (1,966.908 m), National Geodetic Vertical Datum of 1929. See WSP 1916 for history of changes prior to Aug. 11, 1965. Aug. 11, 1965, to Nov. 3, 1968, at present site and datum. Nov. 4, 1968, to June 5, 1970, at site 0.7 mi (1.1 km) upstream on left bank at datum 51.36 ft (15.655 m) higher. June 6, 1970, to Sept. 30, 1972, at site 0.7 mi (1.1 km) upstream on right bank at datum 51.22 ft (15.612 m) higher. Oct. 1, 1972, to June 5, 1978, at site 0.7 mi (1.1 km) upstream on left bank at datum 51.36 ft (15.655 m) higher.

REMARKS.--Records good except those for November to April, which are poor. No diversion above station.

AVERAGE DISCHARGE.--22 years (water years 1941, 1960-80), 35.0 ft³/s (0.991 m³/s), 25,360 acre-ft/yr (31.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,940 ft³/s (54.9 m³/s) July 25, 1941, gage height, 8.73 ft (2.661 m), site and datum then in use, from rating curve extended above 640 ft³/s (18.1 m³/s) on basis of slope-area measurement of peak flow; no flow Jan. 10-17, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 21	2200	*852	24.1	3.76	1.146	June 19	2330	390	11.0	2.58	0.786
June 11	2230	576	16.3	3.23	.984	June 30	0230	238	6.74	1.88	.573

Minimum daily discharge, 0.04 ft³/s (0.001 m³/s) Feb. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	5.0	1.3	1.2	.43	.15	.48	30	87	182	23	10
2	11	4.7	1.3	1.1	.43	.20	.54	26	104	149	22	9.8
3	11	4.8	1.3	1.2	.40	.18	.60	27	106	143	21	9.8
4	11	5.0	1.3	1.2	.36	.10	.68	35	123	113	20	9.8
5	11	5.0	1.4	1.2	.31	.14	.80	54	164	104	20	9.8
6	11	5.0	1.3	1.1	.31	.20	.74	80	144	96	19	9.8
7	11	5.0	1.2	.85	.29	.20	.72	88	110	88	17	9.3
8	10	5.0	1.3	.80	.31	.22	.80	85	126	93	16	8.8
9	10	5.0	1.4	.80	.33	.25	.90	84	226	90	22	8.8
10	10	5.0	1.3	.90	.30	.30	.84	82	322	86	16	11
11	10	5.0	1.0	.80	.23	.30	1.0	68	388	76	16	24
12	10	4.7	1.0	.90	.25	.28	1.1	62	360	67	14	17
13	9.6	5.0	1.1	.90	.20	.30	1.4	52	294	62	14	27
14	9.6	5.3	1.2	.90	.12	.33	1.6	54	276	56	14	16
15	9.6	5.6	1.1	.90	.04	.36	1.6	63	232	53	20	15
16	9.6	5.8	.90	.86	.06	.34	1.5	63	153	48	22	15
17	9.2	5.6	1.0	.80	.08	.34	2.0	79	196	49	16	14
18	9.2	5.2	1.1	.70	.10	.39	3.0	78	250	45	14	15
19	9.2	4.1	1.2	.70	.09	.39	5.0	94	256	43	14	20
20	8.8	3.2	1.2	.80	.08	.38	9.0	212	272	39	13	16
21	8.0	3.5	1.1	.74	.08	.37	15	440	248	38	13	15
22	8.0	4.0	1.0	.74	.06	.36	13	536	216	37	12	15
23	7.6	3.6	1.1	.80	.06	.40	10	479	208	34	12	14
24	8.0	3.1	1.1	.90	.06	.35	11	304	178	32	12	14
25	8.6	2.7	1.2	.80	.06	.38	12	194	176	36	11	14
26	8.6	2.5	1.1	.62	.11	.42	13	206	182	32	11	14
27	8.0	1.8	1.1	.48	.18	.44	13	109	154	30	11	13
28	8.0	1.1	1.2	.30	.16	.48	16	100	122	30	10	13
29	7.2	1.2	1.1	.34	.12	.52	18	131	130	27	10	13
30	6.4	1.3	1.2	.38	---	.50	20	97	180	28	10	13
31	5.8	---	1.3	.40	---	.48	---	87	---	25	10	---
TOTAL	286.0	123.8	36.40	25.11	5.61	10.05	175.30	4099	5983	2031	475	413.9
MEAN	9.23	4.13	1.17	.81	.19	.32	5.84	132	199	65.5	15.3	13.8
MAX	11	5.8	1.4	1.2	.43	.52	20	536	388	182	23	27
MIN	5.8	1.1	.90	.30	.04	.10	.48	26	87	25	10	8.8
AC-FT	567	246	72	50	11	20	348	8130	11870	4030	942	821

CAL YR 1979 TOTAL 8867.45 MEAN 24.3 MAX 189 MIN .00 AC-FT 17590
WTR YR 1980 TOTAL 13664.17 MEAN 37.3 MAX 536 MIN .04 AC-FT 27100

06260000 SOUTH FORK OWL CREEK NEAR ANCHOR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)
OCT				
10...	1215	9.5	135	5.0
NOV				
14...	1300	5.3	220	.0
DEC				
05...	1200	1.4	200	.0
JAN				
07...	1305	.85	110	.0
APR				
14...	1130	1.6	200	2.0
MAY				
09...	1230	80	110	5.5
JUN				
10...	1140	232	94	8.0
JUL				
03...	1400	122	85	12.0
AUG				
07...	1145	19	165	15.0
SEP				
08...	1150	8.8	180	11.5

06260400 SOUTH FORK OWL CREEK BELOW ANCHOR RESERVOIR, WY

LOCATION.--Lat 43°39'57", long 108°47'34", in sec.25, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, on left bank 1.6 mi (2.6 km) downstream from Anchor Dam and 30 mi (48 km) west of Thermopolis.

DRAINAGE AREA.--131 mi² (339 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1959 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,120 ft (1,865 m), from topographic map.

REMARKS.--Records good except those for November to March and periods of no gage-height record, Nov. 25 to Dec. 8, Dec. 12 to Feb. 26, Mar. 4 to Apr. 12, which are poor. Flow regulated by Anchor Dam (see station 06260300). No diversion above station.

AVERAGE DISCHARGE.--21 years, 21.7 ft³/s (0.615 m³/s), 15,720 acre-ft/yr (19.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 373 ft³/s (10.6 m³/s) May 26, 1967, gage height, 3.64 ft (1.109 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 235 ft³/s (6.66 m³/s) Apr. 10, gage height, 3.52 ft (1.073 m); no flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	.21	.00	.00	.00	.70	.00	57	78	134	22	12
2	9.4	.03	.00	.00	.00	.80	.00	38	78	134	20	11
3	9.4	.70	.00	.00	.00	.90	.00	22	88	134	18	8.6
4	9.8	2.2	.00	.00	.00	.40	.00	58	131	132	18	8.6
5	9.8	3.0	.00	.00	.00	.10	.00	61	136	132	18	8.6
6	9.8	3.2	.00	.00	.00	.00	.00	62	134	132	16	8.2
7	9.8	3.2	.00	.00	.00	.00	.00	62	134	125	15	7.5
8	9.8	3.2	.00	.00	.00	.00	.00	64	134	120	14	7.8
9	9.8	3.1	.10	.00	.00	.00	.00	64	134	118	20	8.2
10	9.4	3.0	.10	.00	.00	.10	.00	64	134	117	16	8.6
11	9.4	2.9	.00	.00	.00	.20	.00	65	136	117	14	24
12	9.0	2.9	.00	.00	.00	.10	.00	65	138	115	14	19
13	9.0	3.0	.00	.00	.00	.20	.08	64	141	115	14	24
14	9.0	3.2	.00	.00	.00	.30	.80	62	143	113	13	22
15	8.6	3.3	.10	.00	.00	.40	2.2	86	143	112	18	16
16	9.4	3.3	.10	.00	.00	.30	3.8	68	143	112	26	16
17	9.4	3.2	.10	.00	.00	.20	5.1	66	143	110	19	15
18	9.4	2.8	.20	.00	.10	.23	5.4	61	143	120	14	13
19	8.2	1.9	.10	.00	.09	.20	7.5	62	143	127	14	20
20	8.6	1.3	.04	.00	.08	.14	9.4	65	145	125	14	17
21	5.9	1.4	.00	.00	.07	.10	8.2	105	147	124	13	14
22	3.4	1.8	.00	.00	.06	.06	8.6	108	153	125	12	13
23	5.6	1.6	.00	.00	.05	.08	9.4	85	158	120	12	10
24	7.1	1.0	.00	.00	.04	.04	9.4	78	158	117	11	9.8
25	7.1	.70	.00	.00	.25	.00	9.4	78	158	113	10	12
26	7.1	.50	.00	.00	.72	.00	9.4	79	158	113	11	12
27	7.1	.30	.00	.00	1.0	.00	9.4	71	158.	100	12	11
28	5.6	.10	.00	.00	1.5	.00	69	62	158	82	12	11
29	6.8	.00	.00	.00	1.0	.00	184	66	154	62	10	11
30	3.8	.00	.00	.00	---	.00	85	78	138	26	9.8	9.8
31	1.2	---	.00	.00	---	.00	---	78	---	24	10	---
TOTAL	247.5	57.04	.84	.00	4.96	5.55	436.08	2104	4139	3450	459.8	388.7
MEAN	7.98	1.90	.027	.000	.17	.18	14.5	67.9	138	111	14.8	13.0
MAX	9.8	3.3	.20	.00	1.5	.90	184	108	158	134	26	24
MIN	1.2	.00	.00	.00	.00	.00	.00	22	78	24	9.8	7.5
AC-FT	491	113	1.7	.00	9.8	11	865	4170	8210	6840	912	771

CAL YR 1979 TOTAL 7354.42 MEAN 20.1 MAX 166 MIN .00 AC-FT 14590
WTR YR 1980 TOTAL 11293.47 MEAN 30.9 MAX 184 MIN .00 AC-FT 22400

06260400 SOUTH FORK OWL CREEK BELOW ANCHOR RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

REMARKS.--No flow observed Dec. 5, Jan. 7, Apr. 14.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE, WATER (DEG C)
OCT				
10...	1040	9.7	150	3.0
NOV				
14...	1100	3.2	205	.0
MAY				
09...	1030	62	118	9.0
JUN				
10...	1400	137	115	10.5
JUL				
03...	1150	131	90	14.0
AUG				
07...	1340	16	170	21.0
SEP				
08...	1025	7.6	185	12.0

06264700 BIGHORN RIVER AT LUCERNE, WY

LOCATION.--Lat 43°44'10", long 108°09'38", in SE¼ sec.32, T.44 N., R.94 W., Hot Springs County, Hydrologic Unit 10080007, at bridge on Black Mountain road, 0.7 mi (1.1 km) upstream from Kirby Creek, 0.8 mi (1.3 km) east of Lucerne, and 1.0 mi (1.6 km) downstream from Owl Creek.

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)
OCT 03...	1135	857	1000	8.3	14.5	3	10.6	K18000	300
25...	1330	720	800	8.3	13.5	5	12.0	18000	260
DEC 05...	1330	870	830	8.8	4.0	4	15.4	K95	280
JAN 10...	0900	E800	890	7.8	.0	3	13.8	180	320
FEB 22...	1100	1120	870	7.4	4.0	30	11.8	55	290
APR 02...	0910	1050	920	7.7	5.0	--	12.9	22	270
MAY 09...	0840	926	930	8.4	13.0	2	8.6	24	270
JUN 09...	1330	1850	1000	8.5	17.5	9	9.6	--	260
JUL 01...	0945	4900	710	7.9	16.0	8	8.6	220	220
AUG 04...	1145	852	850	8.9	19.0	2	13.0	26	260
SEP 05...	1015	1270	900	8.7	15.0	6	12.8	60	190

E-Estimate.
K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)
OCT 03...	140	86	20	71	1.8	4.0	190	0	160
25...	100	71	21	64	1.7	3.5	190	0	160
DEC 05...	120	76	21	77	2.0	4.0	200	0	160
JAN 10...	140	89	24	86	2.1	3.8	220	0	180
FEB 22...	120	68	21	78	2.1	3.5	210	0	170
APR 02...	90	72	22	70	1.9	3.6	220	0	180
MAY 09...	81	66	26	79	2.1	2.3	230	0	190
JUN 09...	110	60	27	73	2.0	2.6	180	0	150
JUL 01...	81	58	17	67	2.0	3.4	170	0	140
AUG 04...	140	67	22	62	1.7	2.8	130	9	120
SEP 05...	71	48	18	44	1.4	2.8	150	0	120

06264700 BIGHORN RIVER AT LUCERNE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT									
03...	260	18	.5	8.6	563	.77	1300	.03	.070
25...	230	15	.5	7.7	505	.69	982	.00	.130
DEC									
05...	250	13	.6	6.3	545	.74	1280	.99	.010
JAN									
10...	310	13	.6	7.1	644	.88	1390	.72	.060
FEB									
22...	280	12	.6	4.3	574	.78	1740	.21	.040
APR									
02...	210	12	.6	7.1	507	.69	1440	.03	.020
MAY									
09...	250	13	.6	6.0	550	.75	1380	.00	.010
JUN									
09...	250	9.3	3.0	9.8	520	.71	2600	.50	.030
JUL									
01...	210	8.4	.6	10	460	.63	6090	.19	.190
AUG									
04...	250	10	.5	9.4	510	.69	1170	.04	.010
SEP									
05...	160	7.1	.4	7.7	360	.49	1230	.33	.010

06267400 EAST FORK NOWATER CREEK NEAR COLTER, WY

LOCATION.--Lat 43°54'55", long 107°55'46", in SE¼NE¼ sec.31, T.46 N., R.92 W., Washakie County, Hydrologic Unit 10080007, on left bank 50 ft (15 m) upstream from county road, 1.8 mi (2.9 km) upstream from mouth, 5.2 mi (8.4 km) southeast of Colter, and 7.0 mi (11.3 km) south of Worland.

DRAINAGE AREA.--149 mi² (386 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1971 to current year.

REVISED RECORDS.--WDR WY-75-1: 1972-73.

GAGE.--Water-stage recorder. Altitude of gage is 4,165 ft (1,269 m), from topographic map.

REMARKS.--Records poor. No gage-height record Nov. 4 to Dec. 21, Jan. 15 to Feb. 27, Mar. 3-7, 12-16, 18, Apr. 17 to May 11, May 18-20, Aug. 24 to Sept. 5, Sept. 21-30.

AVERAGE DISCHARGE.--9 years, 5.21 ft³/s (0.148 m³/s), 3,770 acre-ft/yr (4.65 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,040 ft³/s (86.1 m³/s) May 18, 1978, gage height, 6.65 ft (2.027 m); no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 160 ft³/s (4.53 m³/s), Aug. 16, gage height, 1.85 ft (0.564 m); maximum gage height, 2.04 ft (0.622 m) Feb. 28 (backwater from ice), no peak above base of 300 ft³/s (8.50 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	5.0	6.9	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	5.0	18	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	2.0	11	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	14	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	4.8	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	1.7	.00	.02	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	2.0	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	1.5	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.40	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	3.0	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	29	.00	.00	.00	.00	.00	2.0
12	.00	.00	.00	.00	.00	4.0	.00	.00	.00	.00	.00	.16
13	.00	.00	.00	.00	.00	6.0	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	8.0	.00	.56	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	6.0	.00	.60	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	3.0	.00	.00	.00	.00	25	21
17	.00	.00	.00	.00	.00	4.3	.00	.00	.00	.00	3.2	4.3
18	.00	.00	.00	.00	.00	1.0	.00	.00	.00	.00	1.4	3.8
19	.00	.00	.00	.00	1.0	.13	.00	.00	.00	.00	.00	2.3
20	.00	.00	.00	.00	10	.00	.00	.00	.00	.00	.00	.16
21	.00	.00	.00	.00	35	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	34	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	10	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	12	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	12	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	14	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	12	.00	.00	.31	.00	.00	.00	.00
28	.00	.00	.00	.00	25	.00	.00	.18	.00	.00	.00	.00
29	.00	.00	.00	.00	20	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.02	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	185.00	76.45	60.30	1.65	.02	.00	29.60	33.72
MEAN	.000	.000	.000	.000	6.38	2.47	2.01	.053	.001	.000	.95	1.12
MAX	.00	.00	.00	.00	35	29	18	.60	.02	.00	25	21
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	367	152	120	3.3	.04	.00	59	67

CAL YR 1979 TOTAL 1105.74 MEAN 3.03 MAX 90 MIN .00 AC-FT 2190
WTR YR 1980 TOTAL 386.74 MEAN 1.06 MAX 35 MIN .00 AC-FT 767

06267400 EAST FORK NOWATER CREEK NEAR COLTER, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1977 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1978 to current year.
SUSPENDED SEDIMENT: October 1978 to current year.

REMARKS.--No flow Oct. 1 to Feb. 22, Mar. 4-9, 20-30, Apr. 10 to May 26, May 29 to June 5, June 7 to Aug. 15, Aug. 19 to Sept. 10, Sept. 13-15, 21-30.

EXTREMES FOR PERIOD OF RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 62,000 mg/L Aug. 17, 1980; minimum daily, no flow for many days each year.
SEDIMENT LOADS: Maximum daily, 9,730 tons (8,830 tonnes) May 30, 1979; minimum daily, 0 tons on many days each year.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 62,000 mg/L Aug. 17; minimum daily, no flow for many days.
SEDIMENT LOADS: Maximum daily, 5,970 tons (5,420 tonnes) Aug. 16; minimum daily, 0 tons on many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO
FEB											
23...	1110	E10	8.2	.0	--	37	0	8.3	4.0	40	2.9
APR											
02...	0940	16	8.6	5.0	3	64	0	15	6.5	77	4.2
AUG											
16...	1130	50	7.5	15.0	--	140	64	41	10	120	4.4
SEP											
16...	1930	31	7.8	13.0	--	56	0	18	2.6	77	4.5
17...	1330	3.0	8.2	19.0	--	58	0	11	7.3	87	5.0

E-Estimate.

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
FEB											
23...	4.7	55	54	5.2	.2	17	170	.23	4.59	.84	.780
APR											
02...	4.0	76	130	4.2	.5	58	347	.47	15.0	--	--
AUG											
16...	8.5	80	310	5.8	.5	5.3	550	.75	74.8	.74	.780
SEP											
16...	10	110	100	9.0	.8	10	301	.41	25.4	.43	.340
17...	4.4	96	100	9.1	.9	2.9	295	.40	2.39	2.7	--

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB										
23...	.94	5.2	6.0	6.8	30	1.100	3.4	5160	139	100
APR										
02...	--	--	--	--	--	--	--	31800	1370	100
AUG										
16...	.94	93	94	95	420	20.000	61	77400	10400	100
SEP										
16...	.41	33	33	33	150	13.000	40	59000	4940	100
17...	--	--	--	--	--	.480	1.5	--	--	--

06267400 EAST FORK NOWATER CREEK NEAR COLTER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
FEB												
23...	1110	--	--	--	--	--	--	--	--	--	180	--
APR												
02...	0940	--	--	--	--	--	--	--	--	--	170	--
AUG												
16...	1130	400000	400000	40	120	120	1	30	30	0	160	13
SEP												
16...	1930	--	--	--	--	--	--	--	--	--	520	--
17...	1330	140000	130000	7100	60	57	3	20	20	0	540	12

DATE	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
FEB												
23...	--	--	--	--	--	--	--	--	--	--	3000	--
APR												
02...	--	--	--	--	--	--	--	--	--	--	6400	--
AUG												
16...	10	3	530	520	10	940	920	19	510000	510000	120	880
SEP												
16...	--	--	--	--	--	--	--	--	--	--	7100	--
17...	10	2	250	240	10	380	370	15	60	0	6900	380

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)
FEB												
23...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
02...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
16...	840	41	690	690	0	3100	3100	0	3.6	3.6	.0	1
SEP												
16...	--	--	--	--	--	--	--	--	--	--	--	--
17...	350	27	0	0	20	0	0	30	2.0	1.9	.1	2

DATE	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
FEB												
23...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
02...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
16...	0	1	980	970	10	48	35	13	2.0	4800	4800	10
SEP												
16...	--	--	--	--	--	--	--	--	--	--	--	--
17...	2	0	360	360	5	27	18	9	29	0	0	90

06267400 EAST FORK NOWATER CREEK NEAR COLTER, WY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	.0	---				---	---
2					---	---	5.0				---	---
3					---	1.5	4.5				---	---
4					---	---	3.0				---	---
5					---	---	7.5				---	---
6					---	---	5.0				---	---
7					---	---	6.0				---	---
8					---	---	1.0				---	---
9					---	---	---				---	---
10					---	3.0	---				---	---
11					---	5.0	---				---	---
12					---	---	---				---	---
13					---	---	---				---	---
14					---	2.0	---				---	---
15					---	2.0	---				---	---
16					---	1.0	---				15.0	13.0
17					---	3.0	---				---	---
18					---	5.5	---				24.5	---
19					---	---	---				---	---
20					---	---	---				---	---
21					---	---	---				---	---
22					.0	---	---				---	---
23					.0	---	---				---	---
24					.0	---	---				---	---
25					3.5	---	---				---	---
26					.0	---	---				---	---
27					3.0	---	---				---	---
28					1.5	---	---				---	---
29					.0	---	---				---	---
30					---	---	---				---	---
31					---	---	---				---	---
MEAN					1.0	2.5	4.5				20.0	13.0

WTR YR 1980 MEAN 4.5 MAX 24.5 MIN .0

06267400 EAST FORK NOWATER CREEK NEAR COLTER, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			.00			.00		
31	.00			---			.00		
TOTAL	0.00			0.00			0.00		
		JANUARY			FEBRUARY			MARCH	
1	.00			.00	---	.00	5.0	4800	65
2	.00			.00	---	.00	5.0	2100	28
3	.00			.00	---	.00	2.0	2900	16
4	.00			.00	---	.00	.00	---	.00
5	.00			.00	---	.00	.00	---	.00
6	.00			.00	---	.00	.00	---	.00
7	.00			.00	---	.00	.00	---	.00
8	.00			.00	---	.00	.00	---	.00
9	.00			.00	---	.00	.00	---	.00
10	.00			.00	---	.00	3.0	7250	59
11	.00			.00	---	.00	29	27900	3030
12	.00			.00	---	.00	4.0	11300	122
13	.00			.00	---	.00	6.0	18200	295
14	.00			.00	---	.00	8.0	27700	598
15	.00			.00	---	.00	6.0	29100	471
16	.00			.00	---	.00	3.0	24400	198
17	.00			.00	---	.00	4.3	15000	174
18	.00			.00	---	.00	1.0	10300	28
19	.00			1.0	3800	10	.13	4700	1.6
20	.00			10	11200	302	.00	---	.00
21	.00			35	16600	1570	.00	---	.00
22	.00			34	6500	597	.00	---	.00
23	.00			10	5200	140	.00	---	.00
24	.00			12	4400	143	.00	---	.00
25	.00			12	4200	136	.00	---	.00
26	.00			14	4000	151	.00	---	.00
27	.00			12	5100	165	.00	---	.00
28	.00			25	5200	351	.00	---	.00
29	.00			20	8350	451	.00	---	.00
30	.00			---	---	---	.00	---	.00
31	.00			---	---	---	.02	400	.02
TOTAL	0.00			185.00	---	4016.00	76.45	---	5085.62

06267400 EAST FORK NOWATER CREEK NEAR COLTER, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	6.9	5580	104	.00	---	.00	.00	---	.00
2	18	30700	1720	.00	---	.00	.00	---	.00
3	11	23000	683	.00	---	.00	.00	---	.00
4	14	19400	733	.00	---	.00	.00	---	.00
5	4.8	13600	176	.00	---	.00	.00	---	.00
6	1.7	11600	53	.00	---	.00	.02	200	.01
7	2.0	13000	70	.00	---	.00	.00	---	.00
8	1.5	13600	55	.00	---	.00	.00	---	.00
9	.40	3500	3.8	.00	---	.00	.00	---	.00
10	.00	---	.00	.00	---	.00	.00	---	.00
11	.00	---	.00	.00	---	.00	.00	---	.00
12	.00	---	.00	.00	---	.00	.00	---	.00
13	.00	---	.00	.00	---	.00	.00	---	.00
14	.00	---	.00	.56	2000	3.0	.00	---	.00
15	.00	---	.00	.60	2000	3.2	.00	---	.00
16	.00	---	.00	.00	---	.00	.00	---	.00
17	.00	---	.00	.00	---	.00	.00	---	.00
18	.00	---	.00	.00	---	.00	.00	---	.00
19	.00	---	.00	.00	---	.00	.00	---	.00
20	.00	---	.00	.00	---	.00	.00	---	.00
21	.00	---	.00	.00	---	.00	.00	---	.00
22	.00	---	.00	.00	---	.00	.00	---	.00
23	.00	---	.00	.00	---	.00	.00	---	.00
24	.00	---	.00	.00	---	.00	.00	---	.00
25	.00	---	.00	.00	---	.00	.00	---	.00
26	.00	---	.00	.00	---	.00	.00	---	.00
27	.00	---	.00	.31	500	.42	.00	---	.00
28	.00	---	.00	.18	400	.19	.00	---	.00
29	.00	---	.00	.00	---	.00	.00	---	.00
30	.00	---	.00	.00	---	.00	.00	---	.00
31	---	---	---	.00	---	.00	---	---	---
TOTAL	60.30	---	3597.80	1.65	---	6.81	0.02	---	0.01
		JULY			AUGUST			SEPTEMBER	
1	.00			.00	---	.00	.00	---	.00
2	.00			.00	---	.00	.00	---	.00
3	.00			.00	---	.00	.00	---	.00
4	.00			.00	---	.00	.00	---	.00
5	.00			.00	---	.00	.00	---	.00
6	.00			.00	---	.00	.00	---	.00
7	.00			.00	---	.00	.00	---	.00
8	.00			.00	---	.00	.00	---	.00
9	.00			.00	---	.00	.00	---	.00
10	.00			.00	---	.00	.00	---	.00
11	.00			.00	---	.00	2.0	10500	57
12	.00			.00	---	.00	.16	2980	1.3
13	.00			.00	---	.00	.00	---	.00
14	.00			.00	---	.00	.00	---	.00
15	.00			.00	---	.00	.00	---	.00
16	.00			25	60200	5970	21	45000	3560
17	.00			3.2	62000	536	4.3	33000	383
18	.00			1.4	29200	144	3.8	17000	174
19	.00			.00	---	.00	2.3	6500	40
20	.00			.00	---	.00	.16	188	.08
21	.00			.00	---	.00	.00	---	.00
22	.00			.00	---	.00	.00	---	.00
23	.00			.00	---	.00	.00	---	.00
24	.00			.00	---	.00	.00	---	.00
25	.00			.00	---	.00	.00	---	.00
26	.00			.00	---	.00	.00	---	.00
27	.00			.00	---	.00	.00	---	.00
28	.00			.00	---	.00	.00	---	.00
29	.00			.00	---	.00	.00	---	.00
30	.00			.00	---	.00	.00	---	.00
31	.00			.00	---	.00	---	---	---
TOTAL	0.00			29.60	---	6650.00	33.72	---	4215.38
YEAR	386.74		23571.62						

06267900 MIDDLE FORK FIFTEENMILE CREEK NEAR WORLAND, WY

LOCATION.--Lat 44°04'12", long 108°13'43", in SW¼NW¼SW¼ sec.2, T.47 N., R.95 W., Washakie County, Hydrologic Unit 10080007, 2.0 mi (3.2 km) upstream from mouth, 13.4 mi (21.6 km) northwest of Nieber, and 14.3 mi (23.0 km) west of Worland.

PERIOD OF RECORD.--August 1978 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
APR												
02...	1350	1.8	470	8.4	4.0	K900	33	0	8.6	2.7	81	6.2
MAY												
11...	0925	55	570	9.2	7.0	K11000	25	0	7.0	1.9	110	9.5
25...	0820	125	410	9.6	7.5	27000	48	0	11	5.0	74	4.6
JUN												
06...	1215	94	480	9.4	13.0	40000	31	0	9.0	2.1	86	6.7

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)
APR												
02...	4.7	110	80	4.1	.5	33	284	.39	1.38	--	--	--
MAY												
11...	3.4	110	140	4.9	.7	.2	336	.46	49.9	.13	.270	.33
25...	3.7	87	71	8.6	.4	7.8	238	.32	80.3	1.8	.400	.48
JUN												
06...	3.8	78	140	4.9	.5	5.8	299	.41	76.0	2.4	.270	.33

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR											
02...	--	--	--	--	--	--	50	3600	21400	104	100
MAY											
11...	7.1	7.4	7.5	33	1.300	4.0	50	1300	59900	8900	92
25...	29	29	31	140	17.000	52	110	4100	63600	21500	84
JUN											
06...	33	33	35	160	13.000	40	60	350	73000	18500	82

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY

LOCATION.--Lat 44"01'14", long 108°00'42", in NW¼NW¼NE¼ sec.27, T.47 N., R.93 W., Washakie County, Hydrologic Unit 10080007, on left bank 300 ft (91 m) upstream from Bighorn Canal spillway, 2.0 mi (3.2 km) upstream from mouth, and 2.8 mi (4.5 km) west of Worland.

DRAINAGE AREA.--518 mi^2 (1,340 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1951 to December 1972, June 1978 to current year. Occasional measurements and annual maximum, January 1973 to May 1978.

GAGE.--Water-stage recorder. Atitude of gage is 4,070 ft (1,241 m), from topographic map. Prior to Oct. 1, 1956, at site 400 ft (122 m) upstream at datum 5.52 ft (1.682 m) higher. Oct. 1, 1956, to Sept. 30, 1969, at present site at datum 2.00 ft (0.610 m) higher. Jan. 1, 1973, to May 31, 1978, crest-stage gage at present site and datum.

REMARKS.--Records fair except those for period of ice effect and periods of no gage-height record, Oct. 14-25, Oct. 29 to Dec. 21, Dec. 31 to Feb. 7, Feb. 14-23, May 6-11, July 16-25, Aug. 4-15, Aug. 20 to Sept. 5, Sept. 14-17, which are poor. Bureau of Land Management has extensive spreader systems on some of the tributaries above station.

AVERAGE DISCHARGE.--23 years (water years 1952-72, 1979-80), 10.7 ft^3/s (0.303 m^3/s), 7,750 acre-ft/yr (9.56 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,270 ft^3/s (121 m^3/s) May 18, 1978, gage height, 10.58 ft (3.225 m), from floodmarks, from rating curve extended above 1,700 ft^3/s (48 m^3/s); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft^3/s (11.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 25	1945	*738	20.9	4.37	1.332	July 26	0230	555	15.7	3.90	1.189
June 7	0300	626	17.7	4.09	1.247	Sept. 16	a1500	658	18.6	b4.17	1.271
June 16	1445	580	16.4	3.97	1.210						

a-About.
b-From floodmark.

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	10	.00	.00	18	.00	.00	1.3
2	.00	.00	.00	.00	.00	6.0	.00	.00	11	.00	.00	.00
3	.00	.00	.00	.00	.00	3.0	13	1.3	6.8	.00	.00	.00
4	.00	.00	.00	.00	.00	.80	21	1.2	4.4	.00	.00	.00
5	.00	.00	.00	.00	.00	.60	41	1.0	2.8	.00	.00	.00
6	.00	.00	.00	.00	.00	.40	52	.60	113	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	45	.00	400	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	25	.00	74	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	16	.00	24	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	11	.00	17	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	7.8	103	10	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	7.1	118	4.6	.00	.00	2.4
13	.00	.00	.00	.00	.00	.00	5.2	43	3.4	.00	.00	.62
14	.00	.00	.00	.00	.00	.00	2.6	18	2.3	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	1.3	9.5	4.6	.00	7.3	.00
16	.00	.00	.00	.00	.00	.00	.80	6.1	256	.00	42	200
17	.00	.00	.00	.00	.00	.00	.00	4.4	122	.00	40	165
18	.00	.00	.00	.00	.00	.00	.00	13	34	.00	5.8	104
19	.00	.00	.00	.00	.00	.00	.00	5.2	21	.00	2.0	84
20	.00	.00	.00	.00	.00	.00	.00	3.6	14	.00	1.4	72
21	.00	.00	.00	.00	.00	.00	.00	8.6	12	.00	4.1	55
22	.00	.00	.00	.00	.00	.00	.00	5.8	9.0	.00	1.7	14
23	.00	.00	.00	.00	.00	.00	.00	2.8	4.1	.00	.80	1.4
24	.00	.00	.00	.00	.00	.00	.00	1.7	2.3	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	237	1.3	.00	.00	.00
26	.00	.00	.00	.00	2.0	.00	.00	338	.68	153	.00	.00
27	.00	.00	.00	.00	4.0	.00	.00	137	.26	4.4	.00	.00
28	.00	.00	.00	.00	4.0	.00	.00	90	.00	1.2	.00	.00
29	.00	.00	.00	.00	7.0	.00	.00	44	.00	.37	.00	.00
30	.00	.00	.00	.00	---	.00	.00	69	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	37	---	.00	5.8	---
TOTAL	.00	.00	.00	.00	17.00	20.80	248.80	1298.80	1172.54	158.97	110.90	699.72
MEAN	.000	.000	.000	.000	.59	.67	8.29	41.9	39.1	5.13	3.58	23.3
MAX	.00	.00	.00	.00	7.0	10	52	338	400	153	42	200
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	34	41	493	2580	2330	315	220	1390

CAL YR 1979 TOTAL 2853.42 MEAN 7.82 MAX 251 MIN .00 AC-FT 5660
WTR YR 1980 TOTAL 3727.53 MEAN 10.2 MAX 400 MIN .00 AC-FT 7390

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1949 to December 1972, June 1978 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: March 1979 to current year.
SUSPENDED-SEDIMENT DISCHARGE: August 1949 to December 1972, June 1978 to current year.

INSTRUMENTATION.--Sediment pumping sampler since June 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 135,000 mg/L Apr. 16, 1952; minimum daily, no flow for many days each year.
SEDIMENT DISCHARGES: Maximum daily, 418,000 tons (379,200 tonnes) May 22, 1952; minimum daily, 0 tons on many days each year.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 49,500 mg/L May 26; minimum daily, no flow on many days.
SEDIMENT DISCHARGES: Maximum daily, 57,300 tons (52,000 tonnes) June 7; minimum daily, 0 tons on many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO
APR												
03...	1105	25	640	8.2	4.0	600	43	0	13	2.6	110	7.3
MAY												
11...	1150	159	510	9.2	8.0	35000	23	0	5.7	2.1	90	8.2
25...	1445	199	330	9.1	13.0	5200	49	0	13	4.0	66	4.1
JUN												
07...	1000	358	310	9.0	13.0	20000	50	0	15	3.0	120	7.4

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)
APR												
03...	4.1	120	150	3.1	.5	16	373	.51	25.2	--	--	--
MAY												
11...	2.8	130	94	4.7	.6	1.5	281	.38	121	.31	.080	.10
25...	4.1	110	39	7.4	.4	9.4	214	.29	115	1.3	.500	.61
JUN												
07...	4.6	96	210	4.2	.7	6.9	422	.57	408	2.4	.100	.12

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR											
03...	--	--	--	--	--	--	50	1400	31000	2090	100
MAY											
11...	82	82	82	360	13.000	40	40	1500	72200	31000	98
25...	32	32	33	150	20.000	61	110	4300	--	--	--
JUN											
07...	31	31	33	150	9.300	29	40	150	47900	46300	88

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	1.0	---	---	---		---	---
2					---	---	---	---	17.5		---	---
3					---	1.5	4.0	---	---		---	---
4					---	.0	3.5	---	---		---	---
5					---	---	7.0	---	---		---	---
6					---	---	5.5	---	17.0		---	---
7					---	---	6.0	---	13.0		---	---
8					---	---	6.0	---	---		---	---
9					---	---	9.0	---	22.0		---	---
10					---	---	---	---	---		---	---
11					---	---	9.0	8.0	---		---	---
12					---	---	10.0	8.5	---		---	21.5
13					---	---	---	9.5	---		---	---
14					---	---	15.0	12.0	---		---	---
15					---	---	---	16.5	---		20.0	---
16					---	---	---	12.5	---		---	---
17					---	---	---	18.5	18.0		---	12.0
18					---	---	---	---	20.0		21.0	---
19					---	---	---	---	---		---	---
20					---	---	---	---	---		---	---
21					---	---	---	---	---		---	---
22					---	---	---	26.0	---		---	---
23					---	---	---	---	---		---	---
24					---	---	---	---	---		---	---
25					---	---	---	13.0	---		---	---
26					---	---	---	---	---		---	---
27					.0	---	---	---	---		---	---
28					.5	---	---	---	---		---	---
29					.0	---	---	14.0	---		---	---
30					---	---	---	---	---		---	---
31					---	---	---	---	---		---	---
MEAN					.0	1.0	7.5	14.0	18.0		20.5	17.0

WTR YR 1980 MEAN 11.0 MAX 26.0 MIN .0

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.00		
25	.00			.00			.00		
26	.00			.00			.00		
27	.00			.00			.00		
28	.00			.00			.00		
29	.00			.00			.00		
30	.00			.00			.00		
31	.00			---			.00		
TOTAL	0.00			0.00			0.00		

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	.00			.00	---	.00	10	6300	170
2	.00			.00	---	.00	6.0	5800	94
3	.00			.00	---	.00	3.0	4950	40
4	.00			.00	---	.00	.80	1450	3.1
5	.00			.00	---	.00	.60	400	.60
6	.00			.00	---	.00	.40	250	.30
7	.00			.00	---	.00	.00	---	.00
8	.00			.00	---	.00	.00	---	.00
9	.00			.00	---	.00	.00	---	.00
10	.00			.00	---	.00	.00	---	.00
11	.00			.00	---	.00	.00	---	.00
12	.00			.00	---	.00	.00	---	.00
13	.00			.00	---	.00	.00	---	.00
14	.00			.00	---	.00	.00	---	.00
15	.00			.00	---	.00	.00	---	.00
16	.00			.00	---	.00	.00	---	.00
17	.00			.00	---	.00	.00	---	.00
18	.00			.00	---	.00	.00	---	.00
19	.00			.00	---	.00	.00	---	.00
20	.00			.00	---	.00	.00	---	.00
21	.00			.00	---	.00	.00	---	.00
22	.00			.00	---	.00	.00	---	.00
23	.00			.00	---	.00	.00	---	.00
24	.00			.00	---	.00	.00	---	.00
25	.00			.00	---	.00	.00	---	.00
26	.00			2.0	485	2.6	.00	---	.00
27	.00			4.0	2800	30	.00	---	.00
28	.00			4.0	4400	48	.00	---	.00
29	.00			7.0	6200	117	.00	---	.00
30	.00			---	---	---	.00	---	.00
31	.00			---	---	---	.00	---	.00
TOTAL	0.00			17.00	---	197.60	20.80	---	308.00

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN. CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	.00	---	.00	.00	---	.0	18	14600	710
2	.00	---	.00	.00	---	.0	11	13600	404
3	13	19300	1010	1.3	5000	18	6.8	5600	103
4	21	24200	1370	1.2	4000	13	4.4	1400	17
5	41	25200	2790	1.0	3500	9.5	2.8	1200	9.1
6	52	25500	6810	.60	2000	3.2	113	19400	16000
7	45	21000	2550	.00	---	.0	400	49200	57300
8	25	15700	1060	.00	---	.0	74	21200	4490
9	16	9400	406	.00	---	.0	24	18200	1180
10	11	6500	193	.00	---	.0	17	14000	643
11	7.8	5800	122	103	44200	18500	10	13000	351
12	7.1	7000	134	118	41700	13300	4.6	11000	137
13	5.2	5100	72	43	23300	2930	3.4	9800	90
14	2.6	2100	15	18	17200	836	2.3	6700	42
15	1.3	1900	6.7	9.5	15100	387	4.6	14200	267
16	.80	500	1.1	6.1	12800	211	256	40800	40400
17	.00	---	.00	4.4	9200	109	122	20700	7780
18	.00	---	.00	13	14000	545	34	21400	1850
19	.00	---	.00	5.2	9700	136	21	17000	964
20	.00	---	.00	3.6	6500	63	14	14300	541
21	.00	---	.00	8.6	13200	306	12	11000	356
22	.00	---	.00	5.8	47800	749	9.0	10100	245
23	.00	---	.00	2.8	30000	227	4.1	7900	87
24	.00	---	.00	1.7	18400	84	2.3	5600	35
25	.00	---	.00	237	42600	46500	1.3	3400	12
26	.00	---	.00	338	49500	49700	.68	2000	3.7
27	.00	---	.00	137	29600	10900	.26	625	.4
28	.00	---	.00	90	22000	5350	.00	---	.0
29	.00	---	.00	44	16500	1960	.00	---	.0
30	.00	---	.00	69	20800	3880	.00	---	.0
31	---	---	---	37	13300	1440	---	---	---
TOTAL	248.80	---	16539.80	1298.80	---	158156.7	1172.54	---	134017.2
		JULY			AUGUST			SEPTEMBER	
1	.00	---	.00	.00	---	.00	1.3	8000	28
2	.00	---	.00	.00	---	.00	.00	---	.00
3	.00	---	.00	.00	---	.00	.00	---	.00
4	.00	---	.00	.00	---	.00	.00	---	.00
5	.00	---	.00	.00	---	.00	.00	---	.00
6	.00	---	.00	.00	---	.00	.00	---	.00
7	.00	---	.00	.00	---	.00	.00	---	.00
8	.00	---	.00	.00	---	.00	.00	---	.00
9	.00	---	.00	.00	---	.00	.00	---	.00
10	.00	---	.00	.00	---	.00	.00	---	.00
11	.00	---	.00	.00	---	.00	.00	---	.00
12	.00	---	.00	.00	---	.00	2.4	15300	165
13	.00	---	.00	.00	---	.00	.62	3600	6.0
14	.00	---	.00	.00	---	.00	.00	---	.00
15	.00	---	.00	7.3	31000	611	.00	---	.00
16	.00	---	.00	42	41000	5900	200	18100	9770
17	.00	---	.00	40	29600	3380	165	28400	12700
18	.00	---	.00	5.8	18700	293	104	17800	5000
19	.00	---	.00	2.0	11500	62	84	11800	2680
20	.00	---	.00	1.4	6000	23	72	10000	1940
21	.00	---	.00	4.1	30000	332	55	8600	1280
22	.00	---	.00	1.7	25800	118	14	6820	258
23	.00	---	.00	.80	8000	17	1.4	2500	9.4
24	.00	---	.00	.00	---	.00	.00	---	.00
25	.00	---	.00	.00	---	.00	.00	---	.00
26	153	29100	17800	.00	---	.00	.00	---	.00
27	4.4	14000	166	.00	---	.00	.00	---	.00
28	1.2	6000	19	.00	---	.00	.00	---	.00
29	.37	1200	1.2	.00	---	.00	.00	---	.00
30	.00	---	.00	.00	---	.00	.00	---	.00
31	.00	---	.00	5.8	24000	376	---	---	---
TOTAL	158.97	---	17986.20	110.90	---	11112.00	699.72	---	33836.40
YEAR	3727.53		372153.90						

06268600 BIGHORN RIVER AT WORLAND, WY

LOCATION.--Lat 44°00'53", long 107°58'08", in SW¼NE¼ sec.25, T.47 N., R.93 W., Washakie County, Hydrologic Unit 10080007, 40 ft (12 m) downstream from former gaging station, at bridge on U.S. Highway 20 at Worland, and 0.5 mi (0.8 km) downstream from Fifteen Mile Creek.

DRAINAGE AREA.--10,810 mi^2 (27,998 km^2).

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)
OCT												
03...	1315	450	8.1	18.5	310	110	85	23	100	2.5	4.5	240
25...	1430	1080	8.3	13.0	300	140	79	24	80	2.0	4.0	200
DEC												
05...	1445	1220	8.7	3.5	300	120	76	27	93	2.3	5.5	200
JAN												
10...	1000	E800	7.7	1.0	340	140	96	24	96	2.3	4.9	240
FEB												
22...	1230	1120	7.8	.0	310	110	81	26	130	3.2	7.0	240
APR												
02...	1040	1060	7.6	6.5	320	130	85	25	120	2.9	5.3	230
MAY												
09...	1000	316	8.2	15.0	310	110	76	30	110	2.7	3.2	240
JUN												
09...	1430	681	8.4	20.0	260	96	67	22	85	2.3	3.4	200
JUL												
01...	1030	4580	8.0	20.0	210	87	51	20	49	1.5	3.0	150
AUG												
04...	1300	171	8.3	17.0	330	130	83	29	100	2.4	1.4	240
SEP												
05...	1130	898	8.2	17.0	240	76	61	22	77	2.2	2.9	200

E-Estimate.

DATE	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT											
03...	0	200	300	22	.6	8.7	665	.90	808	.73	.130
25...	0	160	290	15	.5	6.6	597	.81	1740	.10	.160
DEC											
05...	12	180	310	22	.6	4.1	651	.89	2140	.00	.020
JAN											
10...	0	200	310	21	.6	12	681	.93	1470	.29	.000
FEB											
22...	0	200	370	24	.5	6.9	766	1.04	2320	.62	.200
APR											
02...	0	190	330	22	.6	7.8	707	.96	2020	.85	.690
MAY											
09...	0	200	330	18	.6	1.2	690	.94	589	.52	.060
JUN											
09...	0	160	270	10	.6	9.7	568	.77	1040	.50	.150
JUL											
01...	0	120	180	7.6	.5	10	400	.54	4950	.29	.090
AUG											
04...	0	200	320	18	.7	11	680	.92	314	1.5	.090
SEP											
05...	0	160	230	12	.6	9.3	510	.69	1240	.57	.050

06270000 NOWOOD RIVER NEAR TEN SLEEP, WY

LOCATION.--Lat 44°00'48", long 107°25'39", in SW¼NW¼ sec.27, T.47 N., R.88 W., Washakie County, Hydrologic Unit 10080008, on right bank 1.7 mi (2.7 km) southeast of Ten Sleep and 4.3 mi (6.9 km) upstream from Tensleep Creek.

DRAINAGE AREA.--803 mi^2 (2,080 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1938 to September 1943, March 1950 to December 1955 (published as Nowood Creek near Tensleep), October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,420 ft (1,347 m), from topographic map. May 6, 1938, to Sept. 30, 1943, nonrecording gage at site 200 ft (61 m) downstream at different datum. Mar. 17, 1950, to Dec. 31, 1955, water-stage recorder at site 100 ft (30 m) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 550 acres (2.23 km^2) above station.

AVERAGE DISCHARGE.--18 years (water years 1939-43, 1951-55, 1973-80), 117 ft^3/s (3.313 m^3/s), 84,770 acre-ft/yr (105 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,380 ft^3/s (95.7 m^3/s) May 19, 1978, gage height, 12.94 ft (3.944 m); maximum gage height observed, 13.0 ft (3.96 m) Mar. 12, 13, 1942 (ice jam), site and datum then in use; minimum daily discharge, 0.70 ft^3/s (0.020 m^3/s) Aug. 13, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 500 ft^3/s (14.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 20	2400	--	--	a7.42	2.262
Aug. 15	2130	*629	17.8	6.63	2.021

a-Maximum recorded during backwater from ice.

Minimum daily discharge, 4.9 ft^3/s (0.14 m^3/s) July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	88	76	70	67	140	97	125	125	30	9.4	41
2	39	87	84	73	74	140	97	153	125	32	9.4	39
3	40	87	90	73	80	122	94	136	105	31	12	33
4	44	87	90	71	86	100	92	125	85	32	12	31
5	45	88	92	68	95	100	90	125	74	31	12	30
6	54	90	92	62	95	104	90	128	66	30	10	33
7	54	90	93	55	90	107	90	116	66	28	11	32
8	55	90	91	55	84	109	85	107	73	27	12	37
9	60	88	92	56	90	109	84	104	64	26	13	39
10	65	88	90	67	84	109	82	102	61	22	13	36
11	72	90	84	71	82	109	84	110	60	12	14	40
12	76	92	80	74	78	112	84	112	56	10	17	52
13	73	90	80	77	74	105	82	119	54	7.8	17	41
14	73	88	80	79	67	110	80	109	54	9.0	25	40
15	76	90	80	82	64	116	80	116	67	8.6	76	41
16	79	94	74	80	68	107	82	109	66	6.7	201	52
17	80	95	78	76	74	97	84	99	62	6.4	95	49
18	82	97	84	71	96	94	85	105	55	7.1	65	48
19	80	92	86	66	112	92	87	99	55	4.9	53	50
20	80	92	86	60	130	90	87	116	54	6.1	50	49
21	85	92	82	61	127	92	94	94	56	7.1	48	48
22	84	86	78	62	120	92	99	87	56	6.7	47	50
23	82	90	75	64	120	90	114	80	55	7.1	48	53
24	82	90	72	76	120	88	127	78	52	7.1	47	52
25	82	89	70	75	120	88	142	112	50	8.2	43	52
26	82	86	68	70	140	90	163	116	44	8.2	40	52
27	82	84	67	66	132	88	146	90	38	8.6	37	53
28	82	82	66	62	132	87	127	76	35	9.4	35	56
29	88	76	64	59	132	85	123	66	32	9.0	37	56
30	90	76	63	55	---	87	125	87	32	7.8	40	56
31	90	---	61	60	---	90	---	92	---	7.5	42	---
TOTAL	2198	2654	2468	2096	2833	3149	2996	3293	1877	454.3	1190.8	1341
MEAN	70.9	88.5	79.6	67.6	97.7	102	99.9	106	62.6	14.7	38.4	44.7
MAX	90	97	93	82	140	140	163	153	125	32	201	56
MIN	39	76	61	55	64	85	80	66	32	4.9	9.4	30
AC-FT	4360	5260	4900	4160	5620	6250	5940	6530	3720	901	2360	2660

CAL YR 1979 TOTAL 32835.0 MEAN 90.0 MAX 292 MIN 12 AC-FT 65130
WTR YR 1980 TOTAL 26550.1 MEAN 72.5 MAX 201 MIN 4.9 AC-FT 52660

06270000 NOWOOD RIVER NEAR TEN SLEEP, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT									
05...	0735	41	8.2	9.0	540	350	150	40	32
24...	0955	82	8.4	5.5	470	280	130	35	21
DEC									
06...	1020	92	8.3	.0	430	250	120	30	19
JAN									
10...	1100	67	7.7	.0	430	230	120	34	12
FEB									
29...	0915	132	7.7	.0	380	200	110	28	29
APR									
08...	1035	86	8.5	4.5	410	240	110	32	17
29...	1010	133	7.8	13.0	300	150	90	17	15
MAY									
13...	0950	119	--	9.5	410	240	120	30	22
JUN									
10...	1015	57	8.3	14.0	410	240	120	30	22
JUL									
03...	0930	33	8.1	20.0	180	99	45	16	15
30...	1000	8.1	7.9	22.0	690	460	180	59	76
SEP									
11...	0900	35	8.2	18.0	540	340	150	42	60

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT									
05...	.6	2.8	230	0	190	380	2.6	.4	10
24...	.4	2.3	230	0	190	310	1.8	.4	9.0
DEC									
06...	.4	2.3	220	0	180	260	2.6	.4	11
JAN									
10...	.2	2.1	240	0	200	230	1.8	.3	.3
FEB									
29...	.6	1.8	220	0	180	260	3.3	.4	8.2
APR									
08...	.4	1.5	210	0	170	270	1.9	.5	12
29...	.4	3.2	180	0	150	170	1.3	.3	10
MAY									
13...	.5	1.5	210	0	170	290	1.2	.5	11
JUN									
10...	.5	1.5	210	0	170	290	1.2	.5	11
JUL									
03...	.5	1.2	99	0	81	120	1.5	.3	5.1
30...	1.3	3.4	280	0	230	600	3.5	.5	11
SEP									
11...	1.1	1.8	240	0	200	440	2.7	.4	8.1

06270000 NOWOOD RIVER NEAR TEN SLEEP, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT								
05...	728	.99	80.6	.10	.020	38	4.2	--
24...	620	.84	137	.20	.050	142	31	--
DEC								
06...	557	.76	138	2.1	.080	255	63	--
JAN								
10...	521	.71	94.2	.82	.050	126	23	--
FEB								
29...	552	.75	197	.80	.300	540	192	99
APR								
08...	550	.75	128	.81	.090	104	24	82
29...	398	.54	143	.47	.320	488	175	82
MAY								
13...	580	.79	186	.01	.060	264	85	82
JUN								
10...	580	.79	89.3	.01	.060	120	18	94
JUL								
03...	250	.34	22.3	.00	.020	70	6.2	88
30...	1200	1.63	26.2	.08	.020	44	.96	--
SEP								
11...	830	1.13	79.3	.02	.000	85	8.1	--

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JUN									
10...	1015	.00	0	.00	.0	.00	0	.00	.0
JUL									
03...	0930	.15	0	.00	.0	.00	0	.00	.0
SEP									
11...	0900	.00	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA-TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA-TERIAL (UG/KG)
JUN				
10...	.00	.0	.00	.0
JUL				
03...	.00	.0	.05	.0
SEP				
01...	.00	.0	.01	.0

06273500 PAINT ROCK CREEK NEAR MOUTH, BELOW HYATTVILLE, WY

LOCATION.--Lat 44°12'20", long 107°42'54", in SW¼SE¼NW¼ sec.19, T.49 N., R.90 W., Big Horn County, Hydrologic Unit 10080008, at bridge on county road, 0.5 mi (0.8 km) south of State Secondary Highway 0201, 1.0 mi (1.6 km) upstream from mouth, and 6.4 mi (10.3 km) southwest of Hyattville.

DRAINAGE AREA.--376 mi^2 (974 km^2), approximately.

PERIOD OF RECORD.--Water years 1951-53, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)
OCT												
05...	1100	31	8.0	10.0	750	500	230	42	54	.9	3.3	300
24...	1150	73	8.4	8.5	470	280	140	32	34	.7	2.8	230
DEC												
06...	1215	70	8.3	1.0	360	200	100	26	32	.7	3.5	200
JAN												
10...	1230	E70	8.1	.0	380	200	110	22	27	.6	2.0	220
FEB												
25...	1010	E55	7.1	.0	380	200	110	27	37	.8	2.8	220
APR												
08...	1245	49	8.5	8.0	370	190	97	30	31	.7	1.8	220
29...	1215	138	8.1	12.0	200	61	42	23	9.0	.3	2.6	170
JUN												
10...	1100	930	8.4	11.0	65	22	20	3.6	5.9	.3	.1	52
JUL												
03...	1100	228	8.3	16.5	170	80	46	12	13	.4	1.2	110
30...	1200	22	8.1	24.5	630	420	180	43	70	1.2	1.2	260
SEP												
10...	1455	30	8.3	21.0	640	430	190	39	53	.9	1.8	260

E-Estimate.

DATE	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT											
05...	0	250	570	3.4	.6	15	1070	1.46	89.6	.00	.010
24...	0	190	330	1.8	.5	12	663	.90	131	.00	.010
DEC											
06...	0	160	240	2.4	.4	11	513	.70	97.0	.21	.000
JAN											
10...	0	180	230	2.3	.4	13	518	.70	97.9	.82	.050
FEB											
25...	0	180	250	2.1	.4	11	551	.75	81.8	.29	.030
APR											
08...	0	180	250	2.3	.4	12	530	.72	70.1	.28	.030
29...	0	140	87	.6	.2	5.9	254	.35	94.6	.04	.060
JUN											
10...	0	43	30	.4	.9	5.1	92	.13	231	.03	.390
JUL											
03...	0	90	100	.8	.4	8.1	230	.31	142	.04	.020
30...	0	210	530	2.6	.6	13	970	1.32	57.6	1.0	.010
SEP											
10...	0	210	540	2.8	.5	13	970	1.32	78.6	.00	.000

06273500 PAINT ROCK CREEK NEAR MOUTH, BELOW HYATTVILLE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN 10...	1100	.00	0	.00	.0	.00	0	.00	.0
JUL 30...	1200	--	0	--	.0	--	0	--	.0
SEP 10...	1455	.00	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
JUN 10...	.00	.0	.01	.0
JUL 30...	--	.0	.00	.0
SEP 10...	.00	.0	.00	.0

06274220 NOWOOD RIVER AT MANDERSON, WY

LOCATION.--Lat 44°16'34", long 107°57'35", in NE¼SW¼ sec.30, T.50 N., R.92 W., Big Horn County, Hydrologic Unit 10080008, at bridge on State Secondary Highway 0201, and 0.5 mi (0.8 km) upstream from mouth near corporate limits of Manderson.

DRAINAGE AREA.--2,000 mi^2 (5,180 km^2), approximately.

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)
OCT												
05...	1240	125	7.8	12.0	590	430	160	45	63	1.1	3.0	200
24...	1255	230	8.3	9.5	--	--	--	--	--	--	--	210
DEC												
06...	1015	E200	8.0	.0	430	260	120	30	32	.7	2.0	210
JAN												
10...	1315	E200	8.0	.0	500	290	130	40	33	.6	2.3	260
FEB												
29...	1430	E120	8.2	.0	330	170	87	28	57	1.4	2.8	200
APR												
08...	1345	197	8.6	9.0	440	270	110	40	39	.8	2.0	210
29...	1315	345	8.2	17.0	230	110	66	15	18	.5	2.8	150
JUN												
10...	1145	1340	7.9	16.5	110	45	32	8.0	15	.6	.7	79
JUL												
03...	1215	450	8.4	21.0	520	380	140	42	41	.8	2.8	170
30...	1400	17	7.9	24.5	660	480	160	65	130	2.2	5.2	220
SEP												
11...	1420	72	8.2	21.0	570	410	160	39	66	1.2	2.5	200

E-Estimate.

DATE	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT											
05...	0	160	530	6.9	.5	6.9	911	1.24	307	.00	.010
24...	0	170	380	3.5	.4	7.9	--	--	--	.00	.000
DEC											
06...	0	170	290	4.3	.4	10	591	.80	--	2.6	.000
JAN											
10...	0	210	320	3.2	.4	15	672	.91	--	.73	.000
FEB											
29...	0	160	270	4.0	.4	7.7	556	.76	180	.47	.350
APR											
08...	0	170	320	4.6	.7	9.4	630	.86	335	.19	.050
29...	0	120	140	1.9	.4	7.8	327	.44	305	.25	.150
JUN											
10...	0	65	77	.6	.3	6.8	179	.24	648	.03	.210
JUL											
03...	0	140	420	2.5	.5	9.6	740	1.01	899	.04	.010
30...	0	180	710	11	.5	6.6	1200	1.63	55.1	.90	.000
SEP											
11...	0	160	550	5.4	.5	8.1	930	1.26	181	.09	.020

06274220 NOWOOD RIVER AT MANDERSON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE, WATER (DEG C)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 05...	1240	125	12.0	.00	0	.00	.0	.00	0	.00	.0
MAY 21...	0730	310	17.0	--	0	.00	.0	.00	0	.00	.0
JUL 14...	1520	126	23.5	.07	0	.00	.0	.00	0	.00	.0
SEP 11...	1420	72	21.0	.00	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
OCT 05...	.00	.0	.00	.0
MAY 21...	.00	.0	.00	.0
JUL 14...	.02	.0	.00	.0
SEP 10...	.00	.0	.00	.0

06275000 WOOD RIVER AT SUNSHINE, WY

LOCATION.--Lat 44°02'15", long 108°58'24", in NW¼SW¼ sec.15, T.47 N., R.101 W., Park County, Hydrologic Unit 10080009, on right bank at bridge on county road, 1.0 mi (1.6 km) downstream from Ernest May Ranch, 5.2 mi (8.4 km) downstream from Dick Creek, and 10 mi (16 km) southwest of Meeteetse.

DRAINAGE AREA.--194 mi^2 (502 km^2), approximately.

PERIOD OF RECORD.--August 1945 to current year.

REVISED RECORDS.--WSP 1309: 1947(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,450 ft (1,966 m), from topographic map. Prior to Sept. 18, 1952, and Oct. 28, 1953, to June 15, 1963, water-stage recorder at site 2.0 mi (3.2 km) upstream at different datum. Sept. 18, 1952, to Oct. 27, 1953, nonrecording gage at site 2.0 mi (3.2 km) upstream at different datum. June 16, 1963, to Aug. 13, 1967, water-stage recorder at site 1.4 mi (2.3 km) upstream at different datum. Aug. 14 to Oct. 5, 1967, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for November to March, which are poor. Water diverts above station to Lower Sunshine Reservoir since 1972. Diversion above station for irrigation of about 3,200 acres (13.0 km^2), of which about 1,000 acres (4.05 km^2) are below station.

AVERAGE DISCHARGE.--27 years (water years 1946-72), prior to Lower Sunshine diversion, 117 ft^3/s (3.313 m^3/s), 84,770 acre-ft/yr (105 hm^3/yr); 8 years (water years 1973-80), 99.2 ft^3/s (2.809 m^3/s), 71,870 acre-ft/yr (88.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,080 ft^3/s (144 m^3/s) June 15, 1963, gage height, 7.00 ft (2.134 m), from floodmark, site and datum then in use, from contracted-opening measurement of peak flow; minimum daily, 0.40 ft^3/s (0.011 m^3/s) Mar. 13, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 935 ft^3/s (26.5 m^3/s) May 22, gage height, 7.35 ft (2.240 m); minimum daily, 5.0 ft^3/s (0.14 m^3/s) Jan. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	14	32	12	8.2	7.8	11	48	180	417	110	66
2	32	14	38	15	8.8	8.8	11	50	170	368	94	61
3	33	13	49	16	8.6	8.0	12	186	180	350	87	57
4	33	15	60	16	8.2	7.0	13	147	232	317	78	55
5	32	18	47	15	8.0	7.4	5.6	112	238	290	73	53
6	32	19	51	13	7.6	7.7	5.3	186	266	266	69	50
7	31	19	42	9.0	7.4	8.0	5.9	281	245	250	70	49
8	31	19	47	9.6	8.0	8.3	7.1	272	265	252	70	51
9	31	19	42	10	9.0	8.6	8.7	258	300	250	78	48
10	31	19	33	12	8.2	9.4	10	235	330	240	67	47
11	30	18	30	11	7.4	11	11	198	370	222	67	96
12	30	18	27	10	8.0	10	11	176	390	204	67	69
13	30	20	25	13	7.0	11	13	172	321	196	67	82
14	30	23	24	20	6.4	12	13	182	296	188	69	76
15	30	26	26	19	6.0	10	16	178	219	180	76	70
16	42	28	28	14	5.6	9.0	14	190	145	163	93	80
17	53	28	30	12	6.0	10	15	269	254	159	77	75
18	45	26	32	11	6.2	11	19	281	254	154	69	69
19	33	25	33	10	6.3	10	13	299	289	149	72	104
20	33	25	33	11	6.4	9.6	15	389	327	135	71	100
21	30	29	32	12	6.4	9.5	10	504	298	135	71	94
22	45	38	30	11	6.2	9.5	9.5	654	242	137	70	90
23	61	36	24	12	6.2	11	9.1	598	268	142	67	93
24	61	32	19	15	6.2	10	8.7	359	269	138	65	93
25	58	31	21	11	6.0	8.0	13	275	249	154	65	91
26	50	30	16	8.0	7.0	8.5	14	104	265	144	65	86
27	41	30	12	7.0	8.0	9.0	12	248	362	133	69	82
28	41	29	11	5.0	7.6	10	11	220	278	127	70	81
29	33	30	10	5.6	7.0	13	11	242	296	124	65	80
30	19	30	10	6.4	---	12	70	190	417	124	64	78
31	16	---	11	6.8	---	11	---	200	---	121	66	---
TOTAL	1129	721	925	358.4	207.9	296.1	397.9	7703	8215	6229	2261	2226
MEAN	36.4	24.0	29.8	11.6	7.17	9.55	13.3	248	274	201	72.9	74.2
MAX	61	38	60	20	9.0	13	70	654	417	417	110	104
MIN	16	13	10	5.0	5.6	7.0	5.3	48	145	121	64	47
AC-FT	2240	1430	1830	711	412	587	789	15280	16290	12360	4480	4420

CAL YR 1979 TOTAL 25730.0 MEAN 70.5 MAX 317 MIN 10 AC-FT 51040
WTR YR 1980 TOTAL 30669.3 MEAN 83.8 MAX 654 MIN 5.0 AC-FT 60830

06276500 GREYBULL RIVER AT MEETEETSE, WY

LOCATION.--Lat 44°09'20", long 108°52'35", in sec.4, T.48 N., R.100 W., Park County, Hydrologic Unit 10080009, on right bank at Meeteetse, 0.3 mi (0.5 km) upstream from bridge on State Highway 120, and 3.0 mi (4.8 km) upstream from Meeteetse Creek.

DRAINAGE AREA.--681 mi^2 (1,764 km^2).

PERIOD OF RECORD.--June to December 1897, April to October 1903 (gage heights and discharge measurements only), July 1920 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1923(M), 1924, 1925(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,739.42 ft (1,749.375 m), National Geodetic Vertical Datum of 1929. See WSP 1916 for history of changes prior to Apr. 28, 1938. Apr. 28, 1938, to May 24, 1961, at site on left bank at datum 2.00 ft (0.610 m) higher. May 25, 1961, to May 9, 1967, at site 100 ft (30 m) downstream at present datum.

REMARKS.--Records poor. Some regulation by Sunshine Reservoir beginning May 1940, capacity, 52,990 acre-ft (65.3 hm^3), and Lower Sunshine Reservoir beginning December 1972, capacity, 58,900 acre-ft (72.6 hm^3). Diversions for irrigation of about 10,600 acres (42.9 km^2) above station. Several diversions above station for irrigation below station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--51 years (water years 1921-71), 347 ft^3/s (9.827 m^3/s), 251,400 acre-ft/yr (310 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft^3/s (385 m^3/s) June 15, 1963, gage height, 9.20 ft (2.804 m), from floodmark, from rating curve extended above 4,600 ft^3/s (130 m^3/s) on basis of velocity-area study; minimum daily, 16 ft^3/s (0.45 m^3/s) Mar. 4, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,540 ft^3/s (71.9 m^3/s) May 23, gage height, 5.17 ft (1.576 m); minimum daily during period of operation, 53 ft^3/s (1.50 m^3/s) Apr. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	313	450	1300	825	510
2							---	221	400	1150	818	515
3							---	313	386	1110	797	470
4							---	321	430	1000	783	420
5							---	274	465	948	769	420
6							---	368	470	908	755	405
7							---	594	372	853	755	376
8							---	576	284	839	762	376
9							---	552	350	908	696	445
10							---	505	624	964	696	420
11							---	465	900	832	690	515
12							---	410	916	804	636	475
13							---	350	790	797	630	546
14							79	386	769	762	600	588
15							92	420	624	755	570	520
16							89	470	480	696	570	445
17							92	672	570	762	624	249
18							115	648	714	797	600	263
19							115	666	727	811	594	430
20							115	839	839	790	564	309
21							107	1010	900	783	500	232
22							66	1160	776	892	455	232
23							62	1300	804	916	450	228
24							62	741	648	932	440	210
25							61	612	672	1020	435	207
26							61	317	734	924	440	197
27							58	530	884	846	485	197
28							53	505	762	832	525	191
29							56	535	769	839	515	185
30							133	470	1030	860	515	173
31							---	410	---	839	515	---
TOTAL							---	16953	19539	27469	19009	10749
MEAN							---	547	651	886	613	358
MAX							---	1300	1030	1300	825	588
MIN							---	221	284	696	435	173
AC-FT							---	33630	38760	54480	37700	21320

06277500 GREYBULL RIVER NEAR BASIN, WY

LOCATION.--Lat 44°24'24", long 108°11'10", in NE¼NW¼SW¼ sec.8, T.51 N., R.94 W., Big Horn County, Hydrologic Unit 10080009, at former gaging station, at bridge on State Secondary Highway 0200, 3.0 mi (4.8 km) upstream from Dorsey Creek, and 8.0 mi (12.9 km) west of Basin.

DRAINAGE AREA.--1,115 mi^2 (2,888 km^2).

PERIOD OF RECORD.--Water years 1951-53, 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)
OCT												
03...	1400	12	8.4	10.5	360	81	91	31	200	4.6	4.3	340
24...	1355	33	8.5	11.5	330	67	82	30	140	3.4	4.5	320
DEC												
06...	0915	120	8.3	1.0	340	86	86	30	96	2.3	4.5	310
JAN												
09...	1130	70	7.8	.0	420	84	110	36	140	3.0	3.8	410
FEB												
20...	1430	80	7.8	.0	360	65	82	38	110	2.5	3.8	360
MAR												
31...	1145	73	8.2	1.0	350	87	90	31	93	2.2	3.6	320
MAY												
08...	1400	30	8.1	14.5	250	32	59	25	120	3.3	2.2	260
27...	0950	206	7.7	12.0	230	41	76	9.0	91	2.6	3.5	230
JUL												
01...	1320	962	8.0	19.5	96	6	27	6.8	24	1.1	2.0	110
AUG												
05...	1230	66	8.6	20.5	260	39	66	22	98	2.7	3.1	270
SEP												
10...	1320	49	8.6	20.0	330	59	85	28	150	3.6	3.9	330

DATE	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT											
03...	0	280	460	17	.7	15	989	1.35	32.0	.40	.020
24...	0	260	340	9.5	.6	17	780	1.06	69.5	.50	.030
DEC											
06...	0	250	260	7.8	.5	15	650	.88	211	.48	.000
JAN											
09...	0	340	350	9.1	.5	19	869	1.18	164	.91	.030
FEB											
20...	0	300	260	7.7	.5	15	699	.95	151	1.1	.050
MAR											
31...	0	260	240	12	.5	13	643	.87	127	.39	.040
MAY											
08...	3	220	260	8.2	.5	15	620	.84	50.2	.23	.130
27...	0	190	210	5.0	.5	18	529	.72	294	.56	.050
JUL											
01...	0	90	53	1.1	.2	13	180	.24	468	.42	.080
AUG											
05...	0	220	240	7.3	.5	16	580	.79	103	.63	.120
SEP											
10...	0	270	350	13	.6	15	810	1.10	107	1.3	.030

DATE	TIME	PCB TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)
OCT										
03...	1400	--	--	--	--	--	--	--	--	--
MAY										
08...	1400	.00	0	.0	.0	.00	.0	.0	0	.00
JUL										
01...	1320	--	0	--	.0	--	.0	--	0	--

06277500 GREYBULL RIVER NEAR BASIN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	SULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT										
03...	--	--	--	--	--	--	--	--	--	--
MAY										
08...	.0	.00	.0	.00	.0	.00	.00	.1	.00	.0
JUL										
01...	.0	--	.0	--	.0	--	--	.0	--	.0

DATE	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)
OCT										
03...	--	--	--	--	--	--	--	--	--	--
MAY										
08...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00
JUL										
01...	--	.0	--	--	.0	--	.0	--	.0	--

DATE	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL (UG/L)
OCT										
03...	--	--	--	--	--	--	--	--	--	--
MAY										
08...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0
JUL										
01...	--	.0	--	--	--	.0	--	--	.00	--

DATE	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT										
03...	--	--	.00	0	--	--	.00	0	.00	.0
MAY										
08...	0	.00	.00	0	.00	.0	.00	0	.00	.0
JUL										
01...	0	--	.05	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
OCT				
03...	.00	.0	.00	.0
MAY				
08...	.00	.0	--	.00
JUL				
01...	.00	.0	.00	.0

06277950 DRY CREEK NEAR GREYBULL, WY

LOCATION.--Lat 44°29'48", long 108°12'33", in NW¼SW¼NW¼ sec.7, T.52 N., R.94 W., Big Horn County, Hydrologic Unit 10080011, on left bank 1.0 mi (1.6 km) downstream from Kellerman Gulch, 7.3 mi (11.7 km) northeast of Otto, and 7.7 mi (12.4 km) west of Greybull.

DRAINAGE AREA.--432 mi^2 (1,120 km^2), of which 18 mi^2 (47 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,020 ft (1,225 m) from topographic map.

REMARKS.--Records good except those for December to March and those below 15 ft^3/s (0.42 m^3/s), which are poor. Diversions for irrigation of about 800 acres (3.2 km^2) above station.

EXTREMES FOR CURRENT YEAR.--April to September 1979: Maximum discharge during period, 232 ft^3/s (6.57 m^3/s) May 30, gage height, 3.25 ft (0.991 m); minimum daily during period of operation, 8.7 ft^3/s (0.246 m^3/s) June 21.

Water year 1980: Maximum discharge, 970 ft^3/s (27.5 m^3/s) Sept. 16, gage height, 5.06 ft (1.542 m); minimum daily, 4.6 ft^3/s (0.130 m^3/s) Jan. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	13	46	34	36	44
2							---	14	24	23	35	34
3							---	15	15	16	32	25
4							---	16	18	18	33	17
5							---	14	26	30	26	17
6							---	13	42	23	18	14
7							---	17	54	26	20	20
8							---	21	38	30	27	19
9							---	23	17	25	32	17
10							---	22	14	23	32	17
11							---	54	12	17	34	22
12							---	78	19	20	34	26
13							---	53	29	17	74	29
14							---	34	20	12	109	29
15							---	18	20	12	104	24
16							---	22	20	12	85	25
17							---	16	17	16	54	22
18							---	22	16	24	44	19
19							---	14	16	21	42	16
20							18	9.3	12	22	73	17
21							17	14	8.7	30	121	22
22							16	15	17	30	112	16
23							14	40	46	40	88	12
24							15	25	46	44	70	13
25							16	40	53	34	66	12
26							16	40	51	42	78	15
27							15	38	55	48	66	18
28							14	36	40	54	48	21
29							13	85	34	48	38	30
30							13	109	34	38	38	48
31							---	33	---	36	44	---
TOTAL							---	963.3	859.7	865	1713	660
MEAN							---	31.1	28.7	27.9	55.3	22.0
MAX							---	109	55	54	121	48
MIN							---	9.3	8.7	12	18	12
AC-FT							---	1910	1710	1720	3400	1310

06277950 DRY CREEK NEAR GREYBULL, WY--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	17	7.6	7.2	5.5	14	13	17	74	72	55	91
2	46	16	8.0	8.0	6.2	16	22	19	70	60	68	98
3	22	17	10	8.6	7.6	17	23	22	52	53	78	80
4	38	16	12	8.2	7.4	12	24	52	44	54	84	68
5	42	17	9.0	7.6	8.1	9.0	26	53	46	46	61	65
6	58	18	8.0	7.0	7.8	9.0	24	23	78	44	44	63
7	48	17	6.4	6.2	7.6	9.5	23	23	64	29	32	63
8	46	17	5.8	6.0	7.2	10	23	42	65	34	37	60
9	48	16	6.0	6.0	7.0	10	19	27	48	37	55	73
10	42	16	7.0	6.4	7.6	13	17	23	63	29	55	64
11	34	15	8.0	6.6	7.2	30	16	59	53	29	51	63
12	33	16	6.4	7.2	7.4	45	16	48	44	30	58	58
13	31	16	7.0	8.0	7.6	50	16	33	37	35	59	59
14	24	17	7.4	9.0	7.0	60	17	16	42	32	55	72
15	22	18	5.2	9.6	5.6	70	15	11	57	34	53	144
16	18	20	4.7	9.2	5.2	60	15	7.1	250	34	84	492
17	18	17	4.8	8.6	5.3	50	16	17	132	34	64	111
18	21	14	5.4	8.2	5.6	45	15	29	69	34	54	57
19	19	16	6.6	7.4	6.0	40	15	29	91	32	48	101
20	13	17	8.2	6.7	6.3	33	16	29	107	35	50	66
21	13	15	8.6	6.7	7.0	32	17	28	119	40	42	80
22	13	12	9.0	7.7	7.2	31	17	26	136	40	44	74
23	12	10	8.0	7.4	7.0	27	15	26	74	40	46	73
24	11	11	7.4	7.6	6.8	30	14	60	58	37	40	74
25	11	11	7.4	7.0	6.8	26	13	389	34	40	34	64
26	10	9.2	8.4	6.0	7.4	22	13	86	42	50	38	64
27	12	8.0	7.8	5.5	11	21	12	52	44	40	33	65
28	13	7.4	7.4	5.0	15	21	12	115	59	46	40	60
29	19	7.2	8.0	4.7	20	19	13	109	55	32	54	54
30	19	7.4	7.0	4.6	---	18	15	114	60	50	57	44
31	18	---	6.6	4.9	---	16	---	76	---	59	72	---
TOTAL	829	431.2	229.1	218.8	223.4	865.5	512	1660.1	2167	1261	1645	2600
MEAN	26.7	14.4	7.39	7.06	7.70	27.9	17.1	53.6	72.2	40.7	53.1	86.7
MAX	58	20	12	9.6	20	70	26	389	250	72	84	492
MIN	10	7.2	4.7	4.6	5.2	9.0	12	7.1	34	29	32	44
AC-FT	1640	855	454	434	443	1720	1020	3290	4300	2500	3260	5160

WTR YR 1980 TOTAL 12642.1 MEAN 34.5 MAX 492 MIN 4.6 AC-FT 25080

06277950 DRY CREEK NEAR GREYBULL, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to current year.

CORRECTION.--The water-quality data for Dry Creek near Greybull (06277950) for the report WDR-WY-79-1 was incorrectly published under station number 06278000.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT										
30...	1305	23	2450	8.7	7.0	360	69	1600	600	280
MAR										
13...	1545	44	3980	7.9	.0	K330	K100	6400	770	470
MAY										
11...	1020	81	--	--	8.0	--	--	--	--	--
27...	1125	51	1980	8.1	13.0	11000	4200	12000	460	230
JUL										
01...	1100	85	--	--	17.0	--	--	--	--	--
SEP										
04...	1450	80	1050	7.9	17.0	1000	610	6600	300	78
16...	1100	456	--	--	8.5	--	--	--	--	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
30...	130	68	320	5.7	12	320	850	50	1.7
MAR									
13...	150	95	620	9.8	57	300	1600	170	1.0
MAY									
11...	--	--	--	--	--	--	--	--	--
27...	110	46	240	4.8	15	230	650	47	.8
JUL									
01...	--	--	--	--	--	--	--	--	--
SEP									
04...	75	27	96	2.4	5.7	220	260	20	1.0
16...	--	--	--	--	--	--	--	--	--

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)
OCT									
30...	24	1650	2.24	103	3.0	.030	.04	.88	.91
MAR									
13...	10	2880	3.92	342	1.1	.340	.41	1.9	2.2
MAY									
11...	--	--	--	--	--	--	--	--	--
27...	19	1270	1.73	175	1.8	.070	.08	2.6	2.7
JUL									
01...	--	--	--	--	--	--	--	--	--
SEP									
04...	20	637	.87	138	1.7	.000	.00	1.3	1.3
16...	--	--	--	--	--	--	--	--	--

06277950 DRY CREEK NEAR GREYBULL, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	SEDIMENT, SUSPENDED (MG/L)	DISCHARGE, SUSPENDED (T/DAY)	SIEVE DIAM. % FINER THAN .062 MM
OCT									
30...	3.9	17	.060	.18	410	40	63	3.9	63
MAR									
13...	3.3	15	.900	2.8	1000	120	1800	214	82
MAY									
11...	--	--	--	--	--	--	3860	844	72
27...	4.5	20	2.600	8.0	330	80	2860	394	98
JUL									
01...	--	--	--	--	--	--	925	212	73
SEP									
04...	3.0	13	.200	.61	140	110	326	70	51
16...	--	--	--	--	--	--	14700	18100	98

06278300 SHELL CREEK ABOVE SHELL RESERVOIR, WY

LOCATION.--Lat 44°30'29", long 107°24'11", in sec.1, T.52 N., R.88 W., Big Horn County, Hydrologic Unit 10080010, Bighorn National Forest, on right bank 0.2 mi (0.3 km) upstream from Shell Reservoir, 1.1 mi (1.8 km) downstream from Buckley Creek, 6.0 mi (9.7 km) southeast of Shell Creek ranger station, and 19 mi (31 km) east of Shell.

DRAINAGE AREA.--23.1 mi^2 (59.8 km^2).

PERIOD OF RECORD.--October 1956 to current year. Prior to October 1969, published as Shell Creek above Shell Creek Reservoir.

REVISED RECORDS.--WSP 1629: 1958. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 9,050 ft (2,758 m), from topographic map.

REMARKS.--Records good except those for November through April, which are poor. No diversions above station.

AVERAGE DISCHARGE.-24 years, 36.5 ft^3/s (1.034 m^3/s), 26,440 acre-ft/yr (32.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,870 ft^3/s (53.0 m^3/s) June 15, 1963, gage height, 7.84 ft (2.390 m), from floodmarks, from rating curve extended above 725 ft^3/s (20.5 m^3/s) on basis of velocity-area study; minimum daily, 0.60 ft^3/s (0.017 m^3/s) Mar. 7, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft^3/s (11.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 22	2330	*751	21.3	a5.74	1.750
June 11	2130	530	15.0	a5.09	1.551

a-from graph based on gage readings.

Minimum daily discharge, 0.82 ft^3/s (0.023 m^3/s) Jan. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	5.3	2.5	2.2	.94	1.2	1.6	68	88	62	9.8	8.6
2	7.3	5.0	2.7	2.0	.97	1.3	1.6	60	100	57	9.8	8.4
3	6.9	5.4	2.6	1.8	1.0	1.4	1.6	50	134	49	9.3	8.6
4	6.9	5.4	2.7	1.8	1.0	1.3	1.7	44	216	44	9.6	8.6
5	6.9	5.0	2.7	1.9	.96	1.2	1.8	54	228	38	8.8	7.9
6	6.9	4.7	2.6	1.8	1.0	1.3	2.1	68	149	34	8.2	7.7
7	6.7	4.9	2.4	1.5	1.0	1.4	2.0	80	126	29	7.7	7.5
8	6.7	5.0	2.4	1.5	.94	1.4	1.8	109	136	28	7.7	7.5
9	6.4	4.9	2.5	1.6	1.0	1.3	1.9	110	209	29	7.7	7.5
10	6.3	4.3	2.7	1.7	1.1	1.3	2.1	102	289	26	7.5	7.3
11	6.3	4.4	2.5	1.7	1.0	1.4	2.0	61	358	24	7.3	7.3
12	6.3	4.4	2.2	1.7	1.0	1.6	1.8	45	316	22	7.1	9.1
13	6.2	4.6	2.2	1.8	1.0	1.4	1.8	42	222	21	6.9	8.6
14	6.1	4.7	2.3	1.9	.94	1.5	2.1	32	198	20	6.7	7.9
15	6.1	5.0	2.5	1.9	1.0	1.7	2.5	28	181	22	8.2	7.7
16	6.1	5.0	2.6	1.9	1.0	1.6	2.3	30	116	19	18	12
17	6.1	5.0	2.7	1.7	1.1	1.6	2.2	34	120	18	14	14
18	6.1	4.7	2.8	1.7	1.1	1.8	2.3	45	141	18	11	18
19	6.3	4.2	2.8	1.4	1.2	1.8	2.3	50	134	17	9.6	39
20	6.5	3.5	2.7	1.5	1.3	1.6	2.4	92	120	16	10	33
21	6.6	3.4	2.4	1.5	1.3	1.7	3.0	304	125	16	10	28
22	6.4	3.4	2.3	1.4	1.2	1.9	5.0	500	100	15	9.1	27
23	6.2	3.7	2.1	1.5	1.2	1.8	5.4	486	70	14	8.6	26
24	6.4	3.5	2.1	1.6	1.1	1.8	7.0	295	73	14	8.4	25
25	6.3	3.4	2.2	1.5	1.1	1.5	6.6	152	75	15	7.9	26
26	6.4	3.0	2.4	1.2	1.2	1.5	6.4	112	71	14	7.9	26
27	6.2	2.6	2.1	.90	1.3	1.6	6.4	107	65	13	7.9	26
28	6.5	2.6	2.1	.82	1.3	1.7	13	120	53	12	8.4	25
29	5.4	2.4	2.2	.85	1.4	1.7	24	113	45	11	7.7	25
30	5.4	2.4	2.3	.90	---	1.9	46	95	47	11	7.5	24
31	5.5	---	2.2	.90	---	1.8	---	84	---	11	8.4	---
TOTAL	197.7	125.8	75.5	48.07	31.65	48.0	162.7	3572	4305	739	276.7	494.2
MEAN	6.38	4.19	2.44	1.55	1.09	1.55	5.42	115	144	23.8	8.93	16.5
MAX	7.3	5.4	2.8	2.2	1.4	1.9	46	500	358	62	18	39
MIN	5.4	2.4	2.1	.82	.94	1.2	1.6	28	45	11	6.7	7.3
AC-FT	392	250	150	95	63	95	323	7090	8540	1470	549	980

CAL YR 1979 TOTAL 11651.30 MEAN 31.9 MAX 472 MIN 2.0 AC-FT 23110
WTR YR 1980 TOTAL 10076.32 MEAN 27.5 MAX 500 MIN .82 AC-FT 19990

06278500 SHELL CREEK NEAR SHELL, WY

LOCATION.--Lat 44°33'54", long 107°42'44", in SE¼SW¼ sec.17, T.53 N., R.90 W., Big Horn County, Hydrologic Unit 10080010, on right bank 0.9 mi (1.4 km) upstream from White Creek and 5.0 mi (8.0 km) northeast of Shell.

DRAINAGE AREA.--145 mi^2 (376 km^2).

PERIOD OF RECORD.--October 1940 to current year (no winter records since 1971). Prior to December 1940, monthly discharge only, published in WSP 1309.

REVISED RECORDS.--WSP 1239: 1941, 1945(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,370.05 ft (1,331.991 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some regulation by two small reservoirs, capacity, 3,650 acre-ft (4.50 hm^3). Diversions above station for irrigation of about 80 acres (32 hm^2) below station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--31 years (water years (1941-71), 119 ft^3/s (3.370 m^3/s), 86,220 acre-ft/yr (106 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,020 ft^3/s (85.5 m^3/s) June 24, 1945, gage height, 7.49 ft (2.283 m), from rating curve extended above 1,600 ft^3/s (45.3 m^3/s); minimum daily, 18 ft^3/s (0.51 m^3/s) Mar. 5, 7, 1950, Jan. 30, 31, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft^3/s (21.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 23	0100	*1,220	34.6	4.77	1.454
June 12	0300	812	23.0	4.19	1.277

Minimum daily discharge during period of operation, 36 ft^3/s (1.02 m^3/s) Apr. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							37	139	328	193	104	80
2							38	149	328	185	103	75
3							37	116	337	173	102	75
4							38	120	419	169	103	73
5							38	124	538	153	100	72
6							38	130	461	140	97	70
7							39	175	426	133	97	68
8							36	193	419	130	96	69
9							39	235	454	138	96	69
10							40	322	514	126	93	67
11							39	235	644	116	92	70
12							39	183	626	112	92	73
13							39	159	534	108	92	72
14							41	147	450	124	92	68
15							44	139	478	132	96	66
16							41	139	391	126	127	86
17							43	157	325	121	109	79
18							45	171	349	121	94	81
19							46	189	349	116	92	90
20							53	215	337	115	96	79
21							61	465	361	112	92	78
22							73	852	334	109	87	76
23							81	906	292	114	86	76
24							79	730	260	114	85	80
25							85	503	235	122	82	79
26							96	349	220	128	84	79
27							79	364	205	114	84	75
28							82	391	189	109	84	75
29							102	380	177	108	80	74
30							104	370	175	108	79	73
31							---	343	---	106	80	---
TOTAL							1652	9090	11155	3975	2896	2247
MEAN							55.1	293	372	128	93.4	74.9
MAX							104	906	644	193	127	90
MIN							36	116	175	106	79	66
AC-FT							3280	18030	22130	7880	5740	4460

06279090 SHELL CREEK NEAR GREYBULL, WY

LOCATION.--Lat 44°30'34", long 108°02'52", in NW¼SW¼ sec.4, T.52 N., R.93 W., Big Horn County, Hydrologic Unit 10080010, at bridge on county road, 0.4 mi (0.6 km) upstream from mouth, and 1.5 mi (2.4 km) north of post office in Greybull.

DRAINAGE AREA.--560 mi^2 (1,450 km^2), approximately.

PERIOD OF RECORD.--Water years 1951, 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT												
04...	1300	71	1500	8.2	11.0	630	430	180	43	74	1.3	2.8
24...	1300	67	1450	8.4	10.0	570	370	150	47	110	2.0	3.0
DEC												
03...	0900	50	1100	7.9	.0	440	220	120	36	68	1.4	2.8
JAN												
02...	0855	E35	900	8.2	.0	410	210	120	29	49	1.0	1.8
FEB												
20...	1300	40	900	7.9	.0	350	180	93	28	42	1.0	2.0
MAR												
31...	0925	56	1150	7.9	4.0	420	240	120	32	67	1.4	1.9
MAY												
06...	1220	22	1550	8.5	19.0	510	300	120	48	160	3.1	2.9
JUN												
05...	1415	640	390	7.9	15.0	160	78	48	10	22	.8	1.0
JUL												
01...	1210	85	1200	7.2	20.0	440	280	120	35	71	1.5	2.1
AUG												
05...	1100	37	2080	8.2	13.0	680	470	190	51	140	2.3	4.0
SEP												
04...	0920	15	1700	7.9	13.0	630	420	160	54	110	1.9	3.6

E-Estimate.

DATE	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT												
04...	240	0	200	560	5.2	.5	10	996	1.35	191	.40	.020
24...	250	0	200	580	4.3	.5	9.1	1020	1.39	185	.50	.010
DEC												
03...	270	0	220	330	5.2	.5	10	703	.96	94.9	.60	.000
JAN												
02...	250	0	200	290	2.8	.4	9.8	623	.85	58.9	.67	.020
FEB												
20...	210	0	170	250	3.1	.4	9.6	535	.73	57.8	.83	.020
MAR												
31...	220	0	180	360	2.8	.5	8.2	703	.96	106	.51	.010
MAY												
06...	260	0	210	630	7.0	.6	8.1	1110	1.51	65.9	.05	.020
JUN												
05...	100	0	82	110	.7	.4	6.8	250	.34	432	.46	.380
JUL												
01...	190	0	160	400	2.7	.6	10	740	1.01	170	.05	.020
AUG												
05...	260	0	210	710	3.1	.7	8.2	1200	1.63	121	.09	.020
SEP												
04...	260	0	210	660	3.2	.6	10	1130	1.54	45.8	.44	.010

06279090 SHELL CREEK NEAR GREYBULL, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT									
04...	1300	.00	0	.00	.0	.00	0	.00	.0
MAY									
06...	1220	.00	0	.32	.0	.01	0	.00	.0
JUN									
05...	1415	--	0	.00	.0	.00	0	.00	.0
JUL									
01...	1210	.37	0	.00	.0	.00	0	.00	.0
AUG									
05...	1100	.00	0	.00	.0	.00	0	.00	.0
SEP									
04...	0920	.04	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA-TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA-TERIAL (UG/KG)
OCT				
04...	.00	.0	.00	.0
MAY				
06...	.00	.0	.00	.0
JUN				
05...	.00	.0	.00	.0
JUL				
01...	.08	.0	.00	.0
AUG				
05...	.00	.0	.00	.0
SEP				
04...	.02	.0	.00	.0

06279500 BIGHORN RIVER AT KANE, WY

LOCATION.--Lat 44°45'31", long 108°10'51", in NW¼NE¼SW¼ sec.9, T.55 N., R.94 W., Big Horn County, Hydrologic Unit 10080010, on right bank 180 ft (55 m) upstream from Bighorn Canyon National Recreation Area boundary, 0.5 mi (0.8 km) upstream from normal high-water line of Bighorn Lake at elevation 3,660 ft (1,116 m), 1.3 mi (2.1 km) upstream from Five Springs Creek, and 5.9 mi (9.5 km) south of Kane.

DRAINAGE AREA.--15,765 mi^2 (40,831 km^2). Area at sites used prior to May 17, 1956, 15,846 mi^2 (41,041 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to current year.

REVISED RECORDS.--WSP 1309: 1929(M). WSP 1509: 1929. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 3,660 ft (1,116 m), from topographic map. Aug. 29, 1928, to Apr. 25, 1932, nonrecording gage, and Apr. 25, 1932, to May 16, 1956, water-stage recorder, at site 12.5 mi (20.1 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Some regulation by Boysen Reservoir (station 06258900) since October 1951. Diversions for irrigation of about 376,000 acres (1,522 km^2) above station.

AVERAGE DISCHARGE.--52 years, 2,283 ft^3/s (64.65 m^3/s), 1,654,000 acre-ft/yr (2,039 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,200 ft^3/s (714 m^3/s) June 16, 1935, gage height, 11.10 ft (3.383 m), site and datum then in use; minimum daily, 179 ft^3/s (5.07 m^3/s) July 22, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1923, 14.8 ft (4.51 m) Sept. 30, 1923, site and datum in use April 1932 to May 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,780 ft^3/s (192 m^3/s) May 26, gage height, 4.67 ft (1.423 m); maximum gage height, 5.78 ft (1.762 m) Dec. 3 (backwater from ice); minimum daily discharge, 908 ft^3/s (25.7 m^3/s) Aug. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1200	1410	1280	1230	1250	1690	1930	1080	3390	5590	1640	1740
2	1210	1400	1300	1230	1250	1700	1960	1360	3290	6110	1630	1800
3	1180	1400	1290	1230	1250	1680	2060	1140	3200	5590	1180	1760
4	1180	1510	1280	1230	1250	1680	2060	1150	3070	5830	932	1680
5	1180	1580	1280	1230	1250	1500	2060	1150	3700	6150	932	1600
6	1080	1560	1260	1230	1180	1600	2040	1110	4290	6270	908	1560
7	1080	1520	1230	1230	1210	1780	2030	985	5010	6410	1180	1540
8	1090	1510	1220	1230	1400	1790	1950	1080	4310	6220	1570	1500
9	1080	1500	1210	1230	1490	1790	1870	1170	3870	5990	1660	1460
10	1090	1500	1210	1230	1490	1800	1840	1290	3990	6040	1750	1500
11	1130	1500	1210	1240	1460	1820	1780	1580	4630	5810	1750	1540
12	1170	1480	1220	1240	1400	1800	1750	2120	5260	4920	1740	1860
13	1240	1450	1210	1240	1600	2020	1720	1930	5310	4150	1760	1860
14	1240	1500	1200	1240	1600	2100	1630	1680	4720	3850	1640	2010
15	1220	1500	1200	1240	1600	2130	1570	1380	4310	3210	1680	2010
16	1220	1440	1210	1240	1610	2160	1620	1250	4490	3110	2010	3710
17	1190	1400	1210	1250	1620	2180	1630	1210	4310	2400	3140	3540
18	1290	1370	1200	1250	1620	2160	1500	1270	3660	2300	2750	2600
19	1300	1330	1240	1250	1620	2120	1510	1370	3850	2350	2380	2350
20	1320	1320	1240	1250	1610	2090	1580	1440	3770	1900	2320	2480
21	1350	1310	1240	1240	1620	2040	1570	1540	4650	1750	2320	2360
22	1360	1300	1230	1240	1630	2060	1540	2890	4820	1750	2200	2330
23	1450	1290	1220	1220	1650	2040	1480	4490	4610	1690	1750	2280
24	1410	1280	1220	1220	1640	2040	1480	4720	4190	1640	1660	2300
25	1370	1270	1240	1230	1640	2000	1480	4880	4470	1600	1580	2280
26	1370	1250	1240	1230	1610	1980	1350	4970	4880	1840	1450	2270
27	1370	1220	1240	1220	1620	1920	1350	3290	5440	2120	1450	2270
28	1370	1210	1230	1240	1630	1930	1270	2790	5480	1860	1450	2250
29	1450	1200	1230	1260	1630	1930	1180	2700	5260	1720	1480	2220
30	1500	1200	1230	1270	---	1920	1080	2860	5310	1680	1480	2190
31	1460	---	1230	1250	---	1930	---	3450	---	1680	1620	---
TOTAL	39150	41710	38250	38360	43430	59380	49870	65325	131540	113530	52992	62850
MEAN	1263	1390	1234	1237	1498	1915	1662	2107	4385	3662	1709	2095
MAX	1500	1580	1300	1270	1650	2180	2060	4970	5480	6410	3140	3710
MIN	1080	1200	1200	1220	1180	1500	1080	985	3070	1600	908	1460
AC-FT	77650	82730	75870	76090	86140	117800	98920	129600	260900	225200	105100	124700

CAL YR 1979 TOTAL 666537 MEAN 1826 MAX 6660 MIN 820 AC-FT 1322000
WTR YR 1980 TOTAL 736387 MEAN 2012 MAX 6410 MIN 908 AC-FT 1461000

06279500 BIGHORN RIVER AT KANE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT										
04...	1100	1150	1200	8.3	12.0	6	9.6	490	370	180
24...	1130	1340	1150	8.3	9.0	--	9.8	590	350	160
DEC										
13...	1030	E1600	1100	8.2	.0	2	--	120	390	190
28...	1230	1230	1080	9.7	.0	5	14.0	K6	360	160
FEB										
29...	1200	E1000	1050	8.1	.0	290	9.4	350	330	150
MAR										
13...	1240	2020	--	--	1.5	--	--	--	--	--
APR										
09...	1030	1860	1200	8.1	7.5	3900	11.8	210	340	150
MAY										
08...	1100	1100	1100	8.6	17.0	180	13.1	--	310	150
JUN										
05...	1100	3560	770	8.3	18.0	650	7.8	5000	230	99
30...	1500	5300	730	8.1	21.0	800	7.4	K170	230	99
JUL										
29...	1000	1750	1190	8.2	22.0	1900	6.6	K560	280	120
SEP										
04...	1100	1650	970	8.2	17.0	--	8.6	230	310	140

E-Estimate.
K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT										
04...	100	29	110	2.5	4.0	230	0	190	390	16
24...	92	29	100	2.3	4.0	230	0	190	350	15
DEC										
13...	110	30	110	2.4	5.0	250	0	200	390	24
28...	99	28	110	2.5	4.3	250	0	200	340	19
FEB										
29...	88	27	120	2.9	5.5	220	0	180	360	24
MAR										
13...	--	--	--	--	--	--	--	--	--	--
APR										
09...	88	27	110	2.6	4.8	230	0	190	370	20
MAY										
08...	76	28	97	2.4	2.5	200	0	160	310	13
JUN										
05...	66	16	65	1.9	2.5	160	0	130	220	8.9
30...	54	22	52	1.5	3.1	160	0	130	190	6.8
JUL										
29...	74	23	83	2.2	4.4	190	0	160	270	12
SEP										
04...	76	28	79	2.0	3.0	210	0	170	290	11

06279500 BIGHORN RIVER AT KANE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT									
04...	.6	6.6	766	1.04	2380	.20	.030	47	146
24...	.6	7.3	709	.96	2570	.30	.090	--	--
DEC									
13...	.7	6.5	796	1.08	3440	.25	.010	--	--
28...	.6	7.7	730	.99	2420	1.8	.030	--	--
FEB									
29...	.5	6.5	740	1.01	2000	.34	.140	--	--
MAR									
13...	--	--	--	--	--	--	--	728	3970
APR									
09...	.7	8.9	740	1.01	3720	2.0	.700	1180	5930
MAY									
08...	.5	5.4	630	.86	1870	.26	.120	118	350
JUN									
05...	.5	8.8	470	.64	4520	.39	.580	1300	12500
30...	.6	9.9	410	.56	5870	.32	.120	1170	16700
JUL									
29...	.5	13	570	.78	2690	.12	.300	503	2380
SEP									
04...	.7	8.6	600	.82	2670	.07	.180	174	775

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE, WATER (DEG C)	PCB TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
24...	1300	--	11.0	.00	0	--	.0	.00	.0	.0	0
MAY											
21...	0915	--	18.5	.00	2	.0	--	.00	.4	.0	0
SEP											
04...	1100	1650	17.0	.00	0	.0	.0	.00	.0	.0	0

DATE	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT											
24...	.00	.0	.00	.0	.00	.0	.00	.00	.1	.00	.0
MAY											
21...	.00	.1	.00	.2	.00	.0	.00	.00	.3	.00	.0
SEP											
04...	.00	.1	.00	.1	.00	.0	.00	.00	.1	.00	.0

06279500 BIGHORN RIVER AT KANE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)
OCT 24...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00
MAY 21...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00
SEP 04...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00

DATE	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL (UG/L)
OCT 24...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0
MAY 21...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0
SEP 04...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0

DATE	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 24...	0	.00	.08	0	.00	.0	.00	0	.00	.0
MAY 21...	0	.00	.12	<0	.00	<.0	.00	0	.00	.0
SEP 04...	0	.00	--	0	--	.0	--	0	--	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
OCT 24...	.03	.0	.00	.0
MAY 21...	.02	.0	.01	.0
SEP 04...	--	.0	--	.0

DATE	TIME	TEMPERATURE, WATER (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM
APR 09...	1030	7.5	1860	77	95	100	--	--
JUN 05...	1100	18.0	3560	16	25	83	93	100

06280000 NORTH FORK SHOSHONE RIVER NEAR WAPITI, WY

LOCATION.--Lat 44°28'45", long 109°20'28", in NW¼NE¼SE¼ sec.15, T.52 N., R.104 W., Park County, Hydrologic Unit 10080012, on left bank 600 ft (183 m) downstream from Trout Creek, 1.6 mi (2.6 km) upstream from normal high-water line of Buffalo Bill Reservoir at elevation 5,369 ft (1,636 m), 4.8 mi (7.7 km) east of Wapiti, and 14 mi (23 km) west of Cody.

DRAINAGE AREA.--775 mi^2 (2,007 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1921 to September 1926, May 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,400 ft (1,646 m), from topographic map. January 1921 to September 1926, water-stage recorder at site 0.6 mi (1.0 km) downstream at different datum.

REMARKS.--Records good, except those for winter periods, which are poor. Diversion for irrigation of about 2,700 acres (10.9 km^2) above station.

AVERAGE DISCHARGE.--6 years (water years 1922-26, 1980), 841 ft^3/s (23.82 m^3/s), 609,300 acre-ft/yr (751 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,250 ft^3/s (262 m^3/s), June 23, 1925, gage height, 6.88 ft (2.097 m), site and datum then in use; minimum daily, 94 ft^3/s (2.66 m^3/s) Jan. 28, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,470 ft^3/s (155 m^3/s) June 21, gage height 6.77 ft (2.063 m); minimum daily, 94 ft^3/s (2.66 m^3/s) Jan. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229	153	135	120	116	130	132	2040	1680	2980	666	534
2	225	156	160	130	130	127	132	1760	1590	2720	636	550
3	222	183	170	130	140	125	132	1780	1600	3410	612	1230
4	222	216	170	130	140	123	134	1940	1500	2810	556	594
5	216	206	169	130	137	120	143	2100	1600	2590	496	470
6	216	197	166	125	132	120	151	2260	1610	2450	480	431
7	213	188	166	115	130	120	139	2470	1480	2310	475	416
8	216	191	169	110	120	125	130	2290	1590	2060	460	412
9	216	206	166	110	130	119	139	2090	2220	3040	455	421
10	216	191	166	120	130	125	151	1870	3040	2320	440	407
11	209	188	121	130	130	132	141	1520	3840	2070	431	1120
12	209	180	115	135	130	127	139	1270	4220	1860	412	1020
13	206	171	110	140	120	117	146	1120	4290	1730	407	1480
14	203	146	105	140	110	127	213	1030	4110	1570	407	1370
15	200	153	100	130	100	130	358	1010	3580	1480	402	910
16	200	177	97	120	107	115	308	1150	2820	1360	534	1630
17	197	188	104	115	115	113	407	1330	3000	1360	445	1090
18	197	197	110	110	125	130	594	1350	3640	1310	393	870
19	209	180	114	105	125	130	810	1570	3920	1210	398	1570
20	238	169	119	110	125	127	1270	2270	4380	1100	455	1070
21	216	127	125	115	120	134	1520	3640	4620	1050	393	1110
22	213	109	120	120	120	134	1570	4420	4370	1070	353	998
23	216	143	115	125	117	134	1610	4870	4310	1010	358	926
24	225	180	110	120	115	132	1760	4220	3860	982	353	862
25	246	180	120	115	120	125	1680	3580	3820	1190	345	774
26	256	158	118	108	130	121	1610	2720	3940	966	375	725
27	229	158	113	100	135	130	1570	2240	3670	870	367	673
28	209	125	108	94	135	125	1520	2020	2780	810	450	636
29	216	120	103	98	134	136	1730	1870	2840	767	362	606
30	203	123	103	104	---	143	1830	1710	2880	725	341	572
31	171	---	110	110	---	134	---	1620	---	692	358	---
TOTAL	6659	5059	3977	3664	3618	3930	22169	67130	92800	51872	13615	25477
MEAN	215	169	128	118	125	127	739	2165	3093	1673	439	849
MAX	256	216	170	140	140	143	1830	4870	4620	3410	666	1630
MIN	171	109	97	94	100	113	130	1010	1480	692	341	407
AC-FT	13210	10030	7890	7270	7180	7800	43970	133200	184100	102900	27010	50530

WTR YR 1980 TOTAL 299970 MEAN 820 MAX 4870 MIN 94 AC-FT 595000

06280000 NORTH FORK SHOSHONE RIVER NEAR WAPITI, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1979 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May 1979 to current year.

INSTRUMENTATION.--Temperature recorder since May 1979.

COOPERATION.--Records furnished by Wyoming Game and Fish Department.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum daily, 19.0°C July 22, 28, 30, 31, Aug. 9, 11, 13, 1980; minimum, 0.5°C many days in March 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily, 19.0°C July 22, 28, 30, 31, Aug. 9, 11, 13; minimum, 0.5°C on many days in March.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1											---	---
2											---	---
3											---	---
4											---	---
5											---	---
6											---	---
7											---	---
8											---	---
9											---	---
10											---	---
11											---	---
12											---	---
13											---	---
14											6.5	.5
15											2.5	.5
16											3.0	.5
17											3.5	.5
18											5.5	.5
19											3.0	.5
20											6.0	.5
21											3.5	.5
22											7.5	.5
23											4.5	.5
24											5.0	.5
25											4.0	.5
26											5.5	.5
27											7.5	1.0
28											6.0	1.0
29											8.5	1.0
30											3.5	1.0
31											5.5	1.0
MONTH											8.5	.5

06280000 NORTH FORK SHOSHONE RIVER NEAR WAPITI, WY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	1.0	9.5	5.5	10.5	6.0	13.5	10.0	18.5	14.5	13.5	9.0
2	7.0	1.0	8.5	4.5	9.0	6.5	13.5	10.5	18.5	12.5	15.0	8.5
3	7.5	1.0	10.5	5.0	11.5	7.0	14.0	10.0	16.5	12.5	12.5	10.0
4	9.0	1.0	10.0	6.0	10.0	6.5	13.0	9.0	15.5	9.0	14.0	8.5
5	9.0	2.0	10.5	5.5	10.0	7.0	14.5	10.0	17.0	10.0	15.5	9.5
6	7.5	1.5	9.0	5.0	11.0	6.5	15.5	9.5	18.5	12.0	15.0	10.5
7	5.5	1.0	10.5	5.5	11.0	7.0	14.5	10.0	18.5	13.0	14.5	12.0
8	8.0	1.0	8.5	5.5	14.5	8.0	16.0	11.0	18.0	13.0	12.5	11.5
9	7.5	2.0	8.5	6.0	14.0	8.5	16.0	11.0	19.0	13.0	15.5	10.0
10	9.0	1.5	7.5	5.0	12.5	8.0	16.5	11.0	18.5	13.0	15.0	12.5
11	8.0	2.0	5.0	4.0	11.5	7.0	16.0	11.0	19.0	12.5	14.0	11.0
12	9.0	2.5	7.5	4.5	11.0	7.0	15.0	12.0	18.5	13.5	12.5	9.5
13	11.5	2.5	8.0	4.5	11.0	6.0	15.5	12.0	19.0	13.0	11.5	9.0
14	12.0	4.0	10.0	5.0	9.0	6.5	14.5	11.0	15.0	13.0	13.5	8.5
15	8.5	3.5	10.0	6.0	9.0	7.0	16.0	11.0	14.5	12.5	12.0	9.5
16	10.5	2.0	9.0	7.0	12.5	7.0	17.5	11.5	15.0	11.5	10.5	7.5
17	11.0	3.0	10.5	6.5	---	---	15.5	12.5	17.5	11.0	12.5	8.0
18	8.0	2.5	10.5	7.0	---	---	16.5	10.0	16.0	12.5	11.5	8.5
19	10.5	3.0	10.5	7.0	---	---	15.5	12.5	13.0	11.0	11.5	9.0
20	9.5	2.5	12.5	7.0	---	---	16.5	12.0	15.0	9.5	10.5	7.5
21	8.0	2.5	11.5	5.0	---	---	18.0	12.0	16.5	9.5	10.0	7.5
22	8.0	4.0	10.0	5.0	---	---	19.0	13.5	15.5	11.0	9.0	5.0
23	9.5	4.5	7.5	6.0	---	---	17.5	14.0	17.5	12.0	9.5	7.0
24	8.5	3.5	8.0	5.0	---	---	17.0	13.5	18.0	12.0	9.0	6.0
25	8.5	4.0	8.0	4.5	---	---	16.5	13.0	15.5	12.0	9.5	6.0
26	9.5	3.5	7.0	4.0	14.0	8.0	17.0	12.5	18.0	12.5	10.5	5.5
27	8.0	4.0	8.0	4.0	13.0	8.0	18.5	13.5	15.5	12.0	11.5	6.5
28	9.0	4.5	9.0	5.5	13.5	8.0	19.0	13.5	15.5	10.5	10.5	7.0
29	9.0	4.5	9.0	6.0	13.0	8.5	18.0	14.0	15.5	11.0	11.5	7.0
30	7.5	5.5	8.5	6.5	14.0	10.0	19.0	13.0	14.5	11.0	12.5	7.5
31	---	---	8.0	6.5	---	---	19.0	13.0	13.5	10.5	---	---
MONTH	12.0	1.0	12.5	4.0	14.5	6.0	19.0	9.0	19.0	9.0	15.5	5.0
YEAR	19.0	.5										

06280300 SOUTH FORK SHOSHONE RIVER NEAR VALLEY, WY

LOCATION.--Lat 44°12'30", long 109°33'15", in NE¼ sec.24, T.49 N., R.106 W., Park County, Hydrologic Unit 10080013, Shoshone National Forest, on left bank 75 ft (23 m) downstream from U.S. Forest Service bridge, 0.4 mi (0.6 km) downstream from Boulder Creek, 3.2 mi (5.1 km) northeast of Valley, and 34 mi (55 km) southwest of Cody.

DRAINAGE AREA.--297 mi^2 (769 km^2).

PERIOD OF RECORD.--October 1956 to September 1958, October 1959 to current year.

REVISED RECORDS.--WRD WY 1974: 1963.

GAGE.--Water-stage recorder. Altitude of gage is 6,200 ft (1,890 m), from topographic map. Prior to Nov. 22, 1961, at site 75 ft (23 m) upstream at same datum.

REMARKS.--Records good. Diversions for irrigation of about 450 acres (1.82 km^2) above station.

AVERAGE DISCHARGE.--23 years, 425 ft^3/s (12.04 m^3/s), 307,900 acre-ft/yr (380 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,220 ft^3/s (233 m^3/s) June 15, 1963, gage height, 8.83 ft (2.691 m), from rating curve extended above 5,600 ft^3/s (159 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 41 ft^3/s (1.16 m^3/s) Feb. 27, 28, 1961, Mar. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,500 ft^3/s (70.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 21	2230	2,610	73.9	5.33	1.625	June 20	2130	*3,490	98.8	5.83	1.777
June 12	2100	2,750	77.9	5.35	1.631						

Minimum daily discharge, 56 ft^3/s (1.59 m^3/s) Nov. 30, Dec. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	72	56	73	68	72	57	815	639	2140	479	249
2	126	65	59	75	70	70	58	617	619	1860	463	213
3	127	64	74	73	73	73	59	645	653	2110	431	203
4	125	74	81	75	74	67	63	774	663	1800	391	190
5	124	73	80	77	72	63	70	870	754	1660	354	181
6	121	72	82	76	73	62	72	905	742	1590	344	176
7	120	68	85	79	75	63	69	883	681	1390	340	176
8	121	67	83	75	72	63	65	816	767	1380	333	180
9	123	72	83	67	66	63	68	740	1230	1620	339	196
10	121	74	86	72	68	64	69	624	1750	1460	315	203
11	117	79	78	81	70	65	66	510	2060	1300	293	543
12	117	74	70	67	71	67	68	426	2170	1180	277	401
13	117	70	64	78	73	64	65	376	2170	1120	273	641
14	115	69	60	83	70	67	72	371	2090	1010	271	538
15	116	70	66	81	68	69	100	382	1760	976	284	388
16	120	73	71	78	69	67	96	390	1410	918	284	422
17	118	78	71	75	71	70	112	463	1840	918	261	361
18	116	83	76	77	75	61	179	456	2230	843	242	335
19	129	83	77	71	78	65	263	578	2420	801	251	728
20	131	80	78	66	76	67	436	937	2770	748	256	450
21	118	72	82	67	75	70	549	1600	2750	723	229	425
22	116	67	82	68	74	69	457	1980	2610	717	217	373
23	116	70	80	71	72	65	354	1960	2450	699	213	340
24	118	69	75	72	71	66	426	1500	2210	687	207	318
25	120	69	77	70	67	67	468	1190	2240	723	209	294
26	122	67	75	64	69	63	474	887	2350	634	244	274
27	114	64	68	61	74	61	463	753	2040	588	224	258
28	116	66	63	60	75	66	516	700	1600	554	241	248
29	118	57	61	61	75	63	594	673	1640	527	207	239
30	106	56	61	62	---	68	634	630	2050	527	198	227
31	84	---	64	65	---	63	---	640	---	506	216	---
TOTAL	3680	2117	2268	2220	2084	2043	7042	25091	51358	33709	8886	9770
MEAN	119	70.6	73.2	71.6	71.9	65.9	235	809	1712	1087	287	326
MAX	131	83	86	83	78	73	634	1980	2770	2140	479	728
MIN	84	56	56	60	66	61	57	371	619	506	198	176
AC-FT	7300	4200	4500	4400	4130	4050	13970	49770	101900	66860	17630	19380

CAL YR 1979 TOTAL 116352 MEAN 319 MAX 2480 MIN 56 AC-FT 230800
WTR YR 1980 TOTAL 150268 MEAN 411 MAX 2770 MIN 56 AC-FT 298100

06281000 SOUTH FORK SHOSHONE RIVER ABOVE BUFFALO BILL RESERVOIR, WY

LOCATION.--Lat 44°25'58", long 109°15'06", in lot 46, sec.33, T.52 N., R.103 W., Park County, Hydrologic Unit 10080013, on right bank at bridge on county road, 1.0 mi (1.6 km) upstream from normal high-water line of Buffalo Bill Reservoir at elevation 5,369 ft (1,636 m), 1.1 mi (1.8 km) downstream from Cody Canal diversion, and 11.5 mi (18.5 km) southwest of Cody.

DRAINAGE AREA.--585 mi² (1,515 km²).

PERIOD OF RECORD.--May to November 1903, May 1905 to September 1908, January 1921 to September 1926, October 1973 to current year (gage heights only June to September 1908). No winter records 1906, 1908, 1922. Published as "at Marquette" 1903, 1905-8, and as Shoshone River above Shoshone Reservoir 1921-26.

REVISED RECORDS.--WSP 1309: 1907.

GAGE.--Water-stage recorder. Altitude of gage is 5,410 ft (1,649 m), from topographic map. Apr. 26 to Nov. 30, 1903, and May 1905 to May 30, 1908, nonrecording gages at sites within about 6.0 mi (9.7 km) downstream at different datums.

REMARKS.--Records good except those for periods of no gage-height record, Oct. 1 to Mar. 10, July 1 to Aug. 6, which are poor. Diversions for irrigation of about 11,000 acres (44.5 km²) above station.

AVERAGE DISCHARGE.--12 years (water years 1907, 1923-26, 1974-80), 428 ft³/s (12.12 m³/s), 310,100 acre-ft/yr (382 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,120 ft³/s (230 m³/s) July 3, 1975; maximum gage height, 7.39 ft (2.252 m) Jan. 12, 1977 (backwater from ice); minimum daily discharge, 2.8 ft³/s (0.079 m³/s) Oct. 24, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,500 ft³/s (99.1 m³/s) June 21, gage height, 6.50 ft (1.981 m); minimum daily, 6.9 ft³/s (0.20 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	68	78	80	82	82	90	968	467	1700	18	28
2	9.0	64	82	84	84	78	86	672	456	1600	18	40
3	7.0	62	97	88	87	82	86	630	461	1650	19	18
4	10	68	123	90	90	76	90	805	478	1400	19	13
5	8.0	69	130	90	86	72	100	904	594	1270	19	12
6	10	68	130	92	88	68	113	928	570	1180	19	11
7	9.0	66	130	93	90	68	111	920	488	1040	19	11
8	9.0	64	130	92	86	70	102	880	494	1020	20	11
9	9.0	66	130	88	80	74	96	728	968	1060	18	12
10	9.0	70	130	96	82	80	104	576	1630	1020	18	12
11	9.0	74	120	100	84	90	98	494	2120	968	16	331
12	9.0	72	110	92	85	90	98	392	2160	784	14	203
13	10	68	100	100	87	88	98	326	2180	728	16	451
14	10	66	93	105	84	94	108	293	2060	672	19	406
15	10	66	90	100	80	88	147	301	1750	588	18	255
16	10	68	98	96	81	84	150	289	1200	494	20	289
17	10	73	105	90	83	80	158	397	1490	456	18	270
18	10	76	105	92	86	86	237	383	2120	388	15	203
19	10	78	110	90	88	84	321	461	2190	338	14	514
20	10	78	115	84	86	86	516	658	2660	297	19	343
21	10	74	120	84	84	88	721	1710	2850	240	16	293
22	10	72	120	85	84	94	714	2350	2590	233	16	255
23	10	75	110	87	82	92	510	2490	2560	215	14	223
24	20	76	100	89	82	88	534	1910	2240	200	14	197
25	50	76	105	86	80	88	606	1440	2130	190	13	181
26	84	76	105	82	82	92	594	952	2360	110	13	175
27	88	74	94	80	84	86	552	679	2140	70	15	161
28	89	74	84	76	86	86	540	546	992	48	22	150
29	89	78	77	76	86	84	624	505	1460	34	14	144
30	85	78	74	78	---	92	651	461	1630	16	13	134
31	76	---	76	80	---	100	---	451	---	17	13	---
TOTAL	795.9	2137	3271	2745	2449	2610	8955	25499	47488	20026	519	5346
MEAN	25.7	71.2	106	88.5	84.4	84.2	299	823	1583	646	16.7	178
MAX	89	78	130	105	90	100	721	2490	2850	1700	22	514
MIN	6.9	62	74	76	80	68	86	289	456	16	13	11
AC-FT	1580	4240	6490	5440	4860	5180	17760	50580	94190	39720	1030	10600

CAL YR 1979 TOTAL 88775.4 MEAN 243 MAX 2590 MIN 4.5 AC-FT 176100
WTR YR 1980 TOTAL 121840.9 MEAN 333 MAX 2850 MIN 6.9 AC-FT 241700

06282000 SHOSHONE RIVER BELOW BUFFALO BILL RESERVOIR, WY

LOCATION.--Lat 44°31'00", long 109°05'50", in lot 71, NE¼ sec.3, T.52 N., R.102 W., Park County, Hydrologic Unit 10080014, on left bank 0.5 mi (0.8 km) downstream from Trail Creek, 1.0 mi (1.6 km) west of Cody city limits, and 5.5 mi (8.8 km) downstream from Buffalo Bill Reservoir.

DRAINAGE AREA.--1,538 mi^2 (3,983 km^2). Area at site prior to Oct. 1, 1949, 1,502 mi^2 (3,890 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1921 to current year. Prior to October 1944, published as "below Shoshone Reservoir".

GAGE.--Water-stage recorder. Altitude of gage is 4,900 ft (1,494 m), from topographic map. Prior to Oct. 1, 1949, at site 2.5 mi (4.0 km) upstream at different datum.

REMARKS.--Records good. Flow completely regulated by Buffalo Bill Reservoir. (See station 09281500.) Diversions above station for irrigation of about 56,100 acres (227 km^2), of which about 37,900 acres (153 km^2) are below station. Diversion, 2.1 mi (3.4 km) upstream, to Heart Mountain Canal began in 1943.

AVERAGE DISCHARGE.--21 years (water years 1922-42), prior to Heart Mountain diversion, 1,256 ft^3/s (35.57 m^3/s), 909,300 acre-ft/yr (1,121 hm^3/yr); 38 years (water years 1943-80), 1,134 ft^3/s (32.11 m^3/s), 821,600 acre-ft/yr (1,013 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft^3/s (416 m^3/s) May 28, 1928, gage height, 10.62 ft (3.237 m), site and datum then in use, from rating curve extended above 11,000 ft^3/s (312 m^3/s); minimum daily discharge, 14 ft^3/s (0.40 m^3/s) Nov. 19, 1933.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since construction of Buffalo Bill Reservoir in 1909, 18,700 ft^3/s (530 m^3/s) June 15, 1918, by computation of flow over dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,100 ft^3/s (144 m^3/s) June 27, gage height, 7.64 ft (2.329 m); minimum daily, 230 ft^3/s (6.51 m^3/s) Mar. 6, 7, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	980	414	336	330	236	233	280	1300	781	3610	1430	996
2	980	406	347	330	236	233	300	1320	769	3610	1380	996
3	977	406	333	330	237	233	280	1320	775	3690	1380	996
4	903	410	336	330	247	233	290	1320	757	3780	1350	1000
5	842	406	340	332	241	233	260	1320	787	3430	1350	996
6	842	410	340	325	240	230	270	1320	786	3170	1320	980
7	844	406	343	303	237	230	270	1330	792	3000	1320	980
8	845	406	350	245	236	233	350	1340	792	2690	1300	980
9	841	410	354	245	236	233	410	1360	810	2860	1230	973
10	837	402	340	245	236	230	410	967	1090	2920	1230	980
11	839	402	347	243	238	233	414	922	1210	2720	1230	980
12	836	402	347	246	239	233	414	834	1220	2460	1240	973
13	835	383	333	245	239	233	418	957	1240	2220	1230	980
14	840	354	333	242	239	233	398	1000	1290	2030	1240	980
15	840	343	347	242	236	233	438	1100	1320	1820	1230	973
16	833	343	350	242	236	233	514	1110	1280	1700	1220	928
17	651	368	343	242	236	233	519	1110	1250	1710	1180	907
18	372	350	347	242	238	233	800	1110	1520	1710	1160	846
19	398	350	343	242	239	233	894	1100	1930	1760	1110	794
20	422	354	340	242	239	233	873	907	1930	1810	1090	781
21	418	357	336	242	239	239	894	907	1940	1830	1040	781
22	361	350	336	239	236	239	1120	921	2060	1810	1020	763
23	275	350	336	239	236	239	1120	928	2860	1750	1000	745
24	473	350	340	239	236	242	1260	921	2930	1570	996	739
25	418	343	340	239	236	242	1260	958	3440	1580	996	709
26	430	347	336	239	233	239	1240	958	4140	1560	1020	680
27	426	340	343	239	233	239	1250	860	4870	1540	1010	680
28	422	350	340	239	233	245	1250	794	4030	1540	996	680
29	418	340	321	239	233	240	1260	781	3550	1520	996	680
30	418	340	329	236	---	240	1280	763	3400	1510	988	680
31	422	---	335	236	---	250	---	757	---	1490	996	---
TOTAL	20238	11192	10541	8069	6876	7305	20736	32595	55549	70400	36278	26156
MEAN	653	373	340	260	237	236	691	1051	1852	2271	1170	872
MAX	980	414	354	332	247	250	1280	1360	4870	3780	1430	1000
MIN	275	340	321	236	233	230	260	757	757	1490	988	680
AC-FT	40140	22200	20910	16000	13640	14490	41130	64650	110200	139600	71960	51880

CAL YR 1979 TOTAL 317366 MEAN 869 MAX 1550 MIN 275 AC-FT 629500
WTR YR 1980 TOTAL 305935 MEAN 836 MAX 4870 MIN 230 AC-FT 606800

06282000 SHOSHONE RIVER BELOW BUFFALO BILL RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-49, 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT												
02...	1430	980	490	6.4	12.0	160	37	50	9.6	14	.5	2.5
29...	1305	422	680	6.8	12.0	320	120	98	19	21	.5	4.0
DEC												
04...	0845	336	1120	7.1	9.0	570	350	180	31	27	.5	5.3
JAN												
02...	1515	332	850	6.9	8.0	360	110	100	25	26	.6	4.3
FEB												
19...	1400	240	1220	6.9	11.5	480	170	140	34	30	.6	5.5
APR												
10...	1200	414	650	6.4	8.5	270	65	58	30	24	.6	3.3
MAY												
05...	1230	1360	410	7.1	12.0	130	7	41	6.4	18	.7	1.6
JUN												
05...	1000	731	470	6.9	12.0	200	69	56	15	14	.4	2.5
27...	1150	5140	222	8.1	16.0	57	0	19	2.2	12	.7	1.5
JUL												
31...	1200	1540	285	6.6	17.0	91	16	29	4.5	7.0	.3	2.0
SEP												
03...	0945	978	580	6.6	16.0	200	93	50	18	7.0	.2	2.6

DATE	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT												
02...	150	0	120	67	3.4	.3	14	233	.32	617	.05	.090
29...	250	0	200	150	3.8	.6	15	431	.59	491	.00	.080
DEC												
04...	270	0	220	390	6.0	.8	15	796	1.08	722	.10	.170
JAN												
02...	300	0	250	150	6.1	.7	22	483	.66	433	.36	--
FEB												
19...	380	0	310	220	7.1	.9	17	647	.88	419	1.1	.030
APR												
10...	250	0	200	100	4.1	.6	16	360	.49	402	.23	.040
MAY												
05...	150	0	120	53	2.1	.3	18	210	.29	771	.06	.030
JUN												
05...	160	0	130	91	2.1	.5	13	270	.37	533	.00	.040
27...	70	0	57	25	.8	.3	14	110	.15	1530	.00	.140
JUL												
31...	92	0	75	28	1.0	.3	13	130	.18	541	.10	.040
SEP												
03...	130	0	110	94	1.6	.4	13	250	.34	660	.40	.020

DATE	TIME	PCB TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)
OCT										
02...	1430	.00	50	--	--	.00	.0	.0	0	.00
JUN										
27...	1150	.00	--	.0	--	.00	--	.0	--	.00
SEP										
03...	0945	.00	0	.0	.0	.00	.0	.0	0	.00

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	ELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	SULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT										
02...	.0	.00	.0	.00	.0	.00	.00	.0	.00	.0
JUN										
27...	--	.00	--	.00	--	.00	.00	--	.00	--
SEP										
03...	.2	.00	.1	.00	.0	.00	.00	.0	.00	.0

DATE	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)
OCT										
02...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00
JUN										
27...	.00	--	.00	.00	--	.00	--	.00	--	.00
SEP										
03...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00

DATE	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL (UG/L)
OCT										
02...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0
JUN										
27...	.00	--	.00	.00	.00	--	.00	.00	--	0
SEP										
03...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0

DATE	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT										
02...	0	.00	.00	0	.00	.0	.00	0	.00	.0
JUN										
27...	--	.00	.00	--	.00	--	.00	--	.00	--
SEP										
03...	0	.00	.00	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
OCT				
02...	.00	.0	.00	.0
JUN				
27...	.00	--	.00	--
SEP				
03...	.00	.0	.00	.0

06282900 SHOSHONE RIVER ABOVE DRY CREEK, NEAR CODY, WY

LOCATION.--Lat 44°34'37", long 108°58'18", in SE¼NW¼NW¼ sec.13, T.53 N., R.101 W., Park County, Hydrologic Unit 10080014, at bridge on U.S. Highway 14A, 160 ft (49 m) downstream from Dry Gulch, 480 ft (146 m) upstream from Dry Creek, 0.4 mi (0.6 km) south of Trotters Station, and 5.5 mi (8.8 km) northeast of Cody.

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARD-NESS (MG/L AS CACO3)
OCT									
02...	1550	955	530	7.8	16.0	10	11.7	>250	180
29...	1450	400	760	8.0	8.5	5	10.9	1400	320
DEC									
03...	1615	335	890	8.3	9.5	6	10.0	--	360
JAN									
03...	1000	E330	860	8.1	4.5	15	13.2	180	380
FEB									
19...	1600	E280	1050	8.6	8.0	55	13.2	--	420
APR									
10...	0800	440	750	7.9	5.5	270	10.3	K30	310
MAY									
05...	1420	1370	450	7.4	13.0	120	11.4	K70	150
JUN									
05...	0740	788	530	7.8	10.0	80	9.2	K110	180
27...	1300	5140	196	7.8	15.0	260	8.3	84	70
JUL									
30...	1430	1600	370	7.8	17.0	8	11.8	36	120
SEP									
03...	1230	1000	520	8.0	17.0	6	8.5	52	180

E-Estimate.
K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT									
02...	49	52	12	26	.8	2.4	130	100	2.5
29...	110	89	23	44	1.1	4.5	210	210	5.5
DEC									
03...	130	100	26	48	1.1	3.3	230	220	6.3
JAN									
03...	150	110	25	44	1.0	5.4	230	210	7.0
FEB									
19...	150	120	29	58	1.2	7.4	270	250	9.6
APR									
10...	110	89	21	46	1.1	4.5	200	180	8.6
MAY									
05...	36	42	10	25	.9	2.4	110	73	2.7
JUN									
05...	41	51	13	27	.9	2.8	140	110	3.1
27...	9	20	4.9	13	.7	1.2	61	33	.5
JUL									
30...	23	35	8.6	18	.7	1.9	100	67	2.0
SEP									
03...	48	50	13	28	.9	2.8	130	110	3.0

06282900 SHOSHONE RIVER ABOVE DRY CREEK, NEAR CODY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)
OCT									
02...	.4	14	288	.39	743	.04	.050	.15	.010
29...	.6	16	520	.71	562	.19	.070	.21	.020
DEC									
03...	.7	16	570	.78	516	2.5	--	--	.010
JAN									
03...	.7	17	559	.76	498	.26	.040	.12	.030
FEB									
19...	.8	15	659	.90	498	1.6	.090	.28	.060
APR									
10...	.5	15	485	.66	576	.08	.170	.52	.040
MAY									
05...	.3	15	237	.32	877	.06	.110	.34	.050
JUN									
05...	.3	15	307	.42	653	.06	.100	.31	.040
27...	.1	14	124	.17	1720	.09	.350	1.1	.060
JUL									
30...	.2	15	208	.28	899	.14	.070	.21	.030
SEP									
03...	.3	16	302	.41	815	.25	.060	.18	.020

06283800 SHOSHONE RIVER ABOVE WILLWOOD DAM, NEAR WILLWOOD, WY

LOCATION.--Lat 44°38'29", long 108°56'16", in SE¼NE¼SE¼ sec.19, T.54 N., R.100 W., Park County, Hydrologic Unit 10080014, on left bank 3.3 mi (5.3 km) upstream from Willwood Dam, 6.3 mi (10 km) southwest of Ralston, and 9.6 mi (15 km) southwest of Willwood.

DRAINAGE AREA.--1,830 mi^2 (4,740 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1979 to September 1980.

GAGE.--Water-stage recorder. Altitude of gage is 4,520 ft (1,378 m), from topographic map.

REMARKS.--Records good except those for periods of no gage-height record, Nov. 1-8, Dec. 16, Jan. 6 to Feb. 19, Mar. 4 to Apr. 9, June 27 to July 14, Sept. 26-30, which are poor. Flow regulated by Buffalo Bill Reservoir. (See station 06281500.) Diversions above station for irrigation of about 137,900 acres (558 km^2), of which about 50,100 acres (203 km^2) are below station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period November to September, 5,440 ft^3/s (154 m^3/s) June 27, gage height, 3.85 ft (1.173 m), from floodmarks; minimum daily during period of operation, 333 ft^3/s (9.43 m^3/s) Feb. 24, Mar. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		460	401	392	340	336	390	510	432	3750	739	608
2		460	406	392	340	333	420	510	432	3750	721	600
3		460	410	392	340	336	420	517	414	3900	721	591
4		460	401	392	340	340	420	531	410	3900	730	575
5		460	401	397	350	340	400	531	410	3500	703	552
6		455	401	397	350	340	400	524	410	3050	676	538
7		455	401	390	350	340	400	524	410	2750	640	538
8		460	406	370	350	340	450	524	410	2500	649	538
9		460	414	350	350	340	470	632	348	2600	559	538
10		455	406	350	350	340	478	1080	419	2700	559	545
11		455	401	350	350	340	478	960	478	2300	531	624
12		449	406	350	350	340	478	608	466	1980	567	649
13		443	397	350	350	340	478	414	460	1750	591	685
14		419	397	350	350	340	455	385	472	1600	591	658
15		410	397	350	350	340	460	466	552	1210	552	703
16		406	400	350	350	340	478	524	640	1040	575	900
17		423	401	350	350	340	438	559	575	1020	608	676
18		419	401	350	350	340	449	524	676	1040	616	649
19		410	397	350	350	340	552	545	414	1100	608	608
20		406	397	350	365	340	531	414	1500	1150	624	575
21		410	392	340	350	345	388	428	1460	1210	649	583
22		410	392	340	345	350	489	449	1510	1160	632	575
23		410	392	340	336	350	478	443	2340	1120	616	531
24		410	392	340	333	350	545	414	2940	910	600	524
25		406	397	340	336	350	531	538	3460	930	600	524
26		406	392	340	341	360	517	503	3940	950	608	490
27		401	397	340	355	360	496	419	5100	940	600	480
28		401	397	340	350	360	472	365	4500	940	583	470
29		397	385	340	341	360	449	378	3880	890	567	460
30		401	385	340	---	360	503	401	3700	860	575	460
31		---	392	340	---	360	---	392	---	850	600	---
TOTAL		12877	12354	11062	10062	10690	13913	16012	43158	57350	19190	17447
MEAN		429	399	357	347	345	464	517	1439	1850	619	582
MAX		460	414	397	365	360	552	1080	5100	3900	739	900
MIN		397	385	340	333	333	388	365	348	850	531	460
AC-FT		25540	24500	21940	19960	21200	27600	31760	85600	113800	38060	34610

06283800 SHOSHONE RIVER ABOVE WILLWOOD DAM, NEAR WILLWOOD, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1979 to September 1980.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980.

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC						
03...	1630	7.5	418	38	43	92
JAN						
02...	1540	5.5	389	39	41	74
FEB						
19...	1640	9.0	354	402	384	97
APR						
10...	0915	6.0	513	410	568	93
MAY						
05...	1625	14.0	528	153	218	--
JUN						
04...	1500	--	420	109	124	87
26...	1400	17.5	4380	1050	12400	--
JUL						
14...	1245	18.0	1600	40	173	90
31...	0900	16.0	812	28	61	81
SEP						
03...	1100	16.0	625	12	20	77

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
JUN										
26...	1400	17.5	4380	17	28	56	78	92	99	100

06284400 SHOSHONE RIVER NEAR GARLAND, WY

LOCATION.--Lat 44°44'20", long 108°35'38", in SE¼SE¼ sec.13, T.55 N., R.98 W., Park County, Hydrologic Unit 10080014, on right bank 50 ft (15 m) downstream from bridge on county road, 600 ft (183 m) downstream from Penrose Dam, 1.3 mi (2.1 km) upstream from Bitter Creek, 4.3 mi (6.9 km) southeast of Garland, and 8.0 mi (12.9 km) east of Powell.

DRAINAGE AREA.--2,036 mi² (5,273 km²).

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	TEMPERATURE, WATER (DEG C)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 02...	0945	344	620	12.5	--	--	--	--	--	--	--	--
MAY 06...	0745	39	--	11.5	.16	0	.01	.0	.01	0	.00	.0
JUL 23...	1500	530	--	20.0	.55	0	.00	.0	.00	0	.00	.0
SEP 02...	1530	404	--	19.0	.04	0	.00	.0	.02	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
MAY 06...	.01	.0	.00	.0
JUL 23...	.00	.0	.00	.0
SEP 02...	.00	.0	.01	.0

06284500 BITTER CREEK NEAR GARLAND, WY

LOCATION.--Lat 44°45'13", long 108°35'29", in SW¼SW¼SW¼ sec.7, T.55 N., R.97 W., Big Horn County, Hydrologic Unit 10080014, on left bank 100 ft (30 m) downstream from bridge on county road, 1.0 mi (1.6 km) upstream from mouth, 4.0 mi (6.4 km) southeast of Garland, and 5.0 mi (8.0 km) southwest of Byron.

DRAINAGE AREA.--80.5 mi^2 (208.5 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1950 to December 1953, October 1957 to September 1960, October 1968 to current year.

REVISED RECORDS.--WSP 1709: Drainage area. WRD WY 1975: 1960(M), 1969(M), 1973(M).

GAGE.--Water-stage recorder. Altitude of gage is 4,080 ft (1,244 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are poor. Flow is mainly return flow from Garland Canal system of Shoshone irrigation project.

AVERAGE DISCHARGE.--18 years (water years 1951-53, 1958-60, 1969-80), 143 ft^3/s (4.050 m^3/s), 103,600 acre-ft/yr (128 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft^3/s (34.8 m^3/s) July 4, 1975, gage height, 4.74 ft (1.445 m), from rating curve extended above 580 ft^3/s (16.4 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft^3/s (0.014 m^3/s) Jan. 30 to Feb. 3, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 916 ft^3/s (25.9 m^3/s) May 10, gage height, 4.00 ft (1.219 m); minimum daily, 13 ft^3/s (0.37 m^3/s) Feb. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	201	50	34	25	18	14	17	181	234	183	281	309
2	210	49	32	25	20	14	18	179	239	174	293	299
3	216	49	31	26	24	14	17	195	234	174	292	262
4	225	48	32	26	21	16	17	204	217	191	298	263
5	208	47	32	23	22	18	18	204	210	191	271	251
6	203	46	31	22	24	17	18	191	204	182	264	250
7	196	45	30	22	26	16	17	192	209	184	272	250
8	191	45	30	23	23	16	17	209	203	188	288	250
9	188	44	29	25	17	17	17	215	189	214	300	250
10	190	43	29	26	18	18	17	376	195	219	332	263
11	183	42	28	31	17	21	17	160	219	220	328	306
12	180	41	27	35	18	20	16	150	209	231	295	302
13	191	40	29	37	19	19	16	195	203	231	276	315
14	205	40	27	35	17	19	16	240	212	236	269	324
15	204	39	25	33	16	20	16	264	258	230	306	290
16	210	38	25	28	13	18	23	271	277	223	328	301
17	199	39	26	23	14	18	75	284	234	231	372	277
18	137	38	27	19	14	18	113	290	227	224	362	262
19	84	38	28	21	14	19	205	298	259	240	320	252
20	72	36	27	21	14	18	181	280	286	275	315	237
21	67	38	26	22	15	19	192	255	305	275	299	236
22	63	39	25	23	15	18	193	241	303	243	262	236
23	61	38	25	25	14	18	153	229	283	236	257	221
24	59	34	26	26	14	18	182	230	238	262	275	216
25	58	34	26	26	14	18	178	277	217	252	262	216
26	55	33	25	25	14	18	164	251	222	253	241	221
27	53	32	26	23	15	18	172	238	221	277	240	225
28	54	32	26	20	15	18	165	218	213	283	259	229
29	58	32	25	16	15	18	187	219	208	272	274	212
30	52	33	25	14	---	19	178	231	195	261	297	192
31	50	---	25	15	---	17	---	231	---	269	308	---
TOTAL	4323	1202	859	761	500	549	2615	7198	6923	7124	9036	7717
MEAN	139	40.1	27.7	24.5	17.2	17.7	87.2	232	231	230	291	257
MAX	225	50	34	37	26	21	205	376	305	283	372	324
MIN	50	32	25	14	13	14	16	150	189	174	240	192
AC-FT	8570	2380	1700	1510	992	1090	5190	14280	13730	14130	17920	15310

CAL YR 1979 TOTAL 47475 MEAN 130 MAX 363 MIN 17 AC-FT 94170
WTR YR 1980 TOTAL 48807 MEAN 133 MAX 376 MIN 13 AC-FT 96810

06284500 BITTER CREEK NEAR GARLAND, WY--Continued

WATER-QUALITY RECORDS

LOCATION.--Daily water temperatures and samples for specific conductance collected at bridge on county road 100 ft (30 m) upstream from discharge station.

PERIOD OF RECORD.--Water years 1951-53, 1958-61, 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1969 to current year.
WATER TEMPERATURES: July 1969 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,150 micromhos Dec. 12, 1972; minimum daily, 451 micromhos July 9, 1978.
WATER TEMPERATURES: Maximum, 26.0°C July 21, 1977; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,840 micromhos Apr. 5; minimum daily, 584 micromhos June 20, 21.
WATER TEMPERATURES: Maximum, 23.0°C July 11; minimum, 0.0°C Jan. 8, 27.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT												
02...	1100	224	890	8.2	12.5	230	26	59	19	88	2.6	3.8
30...	0940	52	1400	8.5	6.0	300	28	73	28	190	4.8	3.6
DEC												
03...	1130	31	1910	7.6	3.0	340	29	83	32	230	5.4	3.8
JAN												
02...	1330	26	1400	8.5	.0	330	42	80	32	200	4.8	4.1
FEB												
19...	1240	14	1610	7.9	.0	330	52	80	32	190	4.5	4.0
APR												
10...	1215	17	1380	9.2	11.0	330	46	76	33	270	6.5	3.8
MAY												
05...	1445	176	900	8.4	18.0	220	33	58	19	96	2.8	3.8
JUN												
03...	1245	257	890	8.4	15.0	210	34	56	18	76	2.3	3.3
JUL												
02...	1230	179	800	8.1	17.5	180	23	47	16	81	2.6	3.3
30...	1000	299	800	8.1	15.0	210	24	56	18	82	2.4	3.2
SEP												
02...	1500	293	890	8.0	19.0	220	45	57	20	80	2.3	3.9

DATE	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)
OCT												
02...	200	230	6.7	.7	16	552	.75	334	2.0	.160	.49	.060
30...	270	450	14	1.2	16	957	1.30	134	4.3	.070	.21	.050
DEC												
03...	310	500	17	1.2	18	1100	1.50	92.1	5.4	--	--	.240
JAN												
02...	290	410	17	1.1	19	961	1.31	67.5	5.2	.410	1.3	.380
FEB												
19...	280	410	18	1.2	16	955	1.30	36.1	7.9	.630	1.9	.490
APR												
10...	280	580	21	1.0	7.9	1170	1.59	54.7	3.1	.290	.89	.250
MAY												
05...	190	210	8.5	.6	17	539	.73	256	2.7	.710	2.2	.190
JUN												
03...	180	180	6.2	.5	36	491	.67	341	1.6	.330	1.0	.060
JUL												
02...	160	160	6.5	.7	17	438	.60	212	2.3	.270	.83	.160
30...	190	190	[illegible]	.7	18	501	.68	404	2.8	.370	1.1	.080
SEP												
02...	180	190	6.2	.7	17	492	.67	389	2.1	.230	.71	.030

06284500 BITTER CREEK NEAR GARLAND, WY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980 ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	885	1220	1390	1330	1230	1600	1710	740	721	717	713	723
2	876	1170	1390	1280	1220	1600	1700	751	716	681	684	745
3	772	1260	1420	1390	1240	1550	1720	731	710	717	721	745
4	761	1280	1420	1440	1240	1450	1760	740	704	686	708	734
5	788	1310	1560	1530	1410	1530	1840	737	702	728	716	776
6	828	1260	1550	1620	1410	1460	1830	793	704	735	753	770
7	828	1270	1580	1540	1400	1540	1620	788	688	734	710	776
8	844	1300	1540	1500	1400	1530	1580	765	710	750	716	773
9	845	1270	1540	1440	1360	1520	1620	776	707	750	705	773
10	813	1370	1530	1510	1360	1550	1660	1040	718	766	668	762
11	806	1400	1550	1440	1420	1560	1550	1090	690	745	676	795
12	808	1200	1540	1560	1420	1530	1630	1000	663	745	682	751
13	817	1290	1420	1370	1430	1680	1590	899	652	702	741	746
14	840	1270	1410	1370	1340	1530	1640	785	652	696	747	746
15	834	1330	1480	1440	1440	1610	1720	757	685	730	714	747
16	1200	1340	1590	1500	1340	1550	1640	740	718	735	752	758
17	832	1460	1370	1510	1330	1560	969	781	723	728	736	780
18	1170	1410	1360	1420	1360	1580	1030	735	668	733	703	760
19	1150	1300	1460	1420	1330	1670	629	716	671	730	722	786
20	1210	1300	1450	1480	1380	1670	640	710	584	714	738	789
21	1210	1420	1470	1420	1320	1680	673	738	584	718	741	783
22	1190	1430	1470	1430	1510	1650	635	736	605	728	749	786
23	1230	1440	1490	1430	1520	1700	687	756	608	722	749	786
24	1230	1440	1500	1430	1560	1680	655	742	603	699	749	809
25	1220	1430	1510	1500	1540	1610	661	702	644	723	748	798
26	1230	1460	1460	1590	1640	1620	701	701	613	720	790	775
27	1240	1410	1490	1600	1610	1660	701	718	665	726	777	775
28	1270	1360	1480	1410	1630	1670	724	779	624	729	766	775
29	1240	1340	1480	1410	1660	1650	752	779	665	713	769	809
30	1240	1360	1490	1270	---	1740	724	732	618	742	742	807
31	1230	---	1370	1260	---	1760	---	732	---	719	737	---
MEAN	1010	1340	1480	1450	1420	1600	1230	780	667	725	730	771

WTR YR 1980 MEAN 1100 MAX 1840 MIN 584

06284500 BITTER CREEK NEAR GARLAND, WY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	8.0	3.0	1.5	1.0	4.0	6.0	14.5	17.0	20.5	20.0	17.5
2	16.0	8.0	3.0	2.0	1.0	4.0	7.5	17.5	17.0	19.0	18.0	16.5
3	15.0	10.0	6.5	1.5	1.5	.5	11.0	16.5	14.5	20.5	15.5	18.0
4	16.0	7.0	5.0	1.5	2.0	.5	8.0	9.0	17.0	20.5	14.0	18.0
5	17.5	8.0	5.5	1.5	2.0	1.5	8.5	17.5	19.0	22.5	16.0	13.5
6	16.5	8.5	5.0	.5	1.5	1.0	12.5	18.0	15.0	21.5	22.0	14.0
7	17.0	8.0	4.5	.5	1.0	3.0	8.0	18.5	16.0	20.0	19.5	17.0
8	11.0	9.0	4.5	.0	1.5	4.0	11.0	16.0	17.0	21.5	18.5	16.0
9	13.0	7.0	4.5	1.0	2.0	4.5	10.0	15.5	21.0	21.0	19.0	18.0
10	15.5	6.0	.5	1.0	2.0	10.5	9.0	9.0	20.5	22.0	20.0	18.5
11	17.0	5.5	.5	1.0	1.0	9.5	10.0	12.0	21.0	23.0	17.0	16.0
12	16.0	6.0	1.0	.5	1.5	10.5	11.5	11.0	20.0	19.0	15.5	17.0
13	15.0	7.0	1.5	.5	1.0	9.5	16.0	15.0	20.0	20.0	18.0	18.0
14	14.5	8.0	3.0	1.5	.5	11.0	19.5	16.5	18.5	15.0	17.0	18.0
15	13.5	7.5	.5	2.5	.5	6.0	14.0	17.0	18.0	16.0	15.5	15.5
16	14.5	8.0	.5	2.0	1.0	7.0	18.5	15.5	18.0	15.0	19.0	15.5
17	15.5	6.0	1.0	2.0	1.0	9.0	17.0	15.0	19.5	16.5	17.5	16.0
18	14.0	8.5	3.0	.5	1.0	12.0	16.0	15.0	19.0	16.0	16.5	15.5
19	13.5	3.5	2.0	1.0	3.0	8.0	15.5	15.0	19.0	17.0	15.0	15.5
20	10.0	3.0	3.0	2.0	6.0	11.0	15.5	19.0	19.0	21.0	17.0	15.5
21	10.0	3.0	3.0	1.0	6.5	7.5	17.5	20.0	18.0	22.0	17.5	14.5
22	9.5	3.0	5.0	1.5	7.0	11.5	16.0	20.0	19.0	22.5	18.0	9.0
23	12.0	3.0	4.0	1.5	6.5	10.0	14.5	18.0	19.0	20.0	17.0	11.5
24	11.0	3.5	3.5	2.5	7.0	10.5	15.5	18.0	19.0	16.5	18.0	12.0
25	14.0	5.0	4.5	2.0	6.5	4.5	15.5	14.0	21.5	17.0	17.0	14.5
26	12.0	4.0	4.0	.5	7.0	10.0	16.5	15.0	21.0	20.5	16.0	16.0
27	11.0	.5	4.0	.0	7.0	9.5	17.0	18.0	21.0	19.5	18.0	16.5
28	9.0	1.0	3.0	.5	8.0	8.0	17.5	14.5	17.0	21.0	17.0	15.0
29	5.0	1.0	.5	.5	4.5	14.0	17.5	14.0	19.0	17.0	19.0	16.0
30	8.0	1.0	.5	.5	---	8.0	15.0	14.5	17.0	20.0	17.5	16.5
31	9.5	---	.5	1.0	---	7.5	---	14.0	---	19.0	16.0	---
MEAN	13.0	5.5	3.0	1.0	3.0	7.5	13.5	15.5	18.5	19.5	17.5	15.5

WTR YR 1980 MEAN 11.0 MAX 23.0 MIN .0

YELLOWSTONE RIVER BASIN

06284800 WHISTLE CREEK NEAR GARLAND, WY

LOCATION.--Lat 44°43'21", long 108°34'16", in NW¼NW¼NE¼ sec.30, T.55 N., R.97 W., Big Horn County, Hydrologic Unit 10080014, on right bank 300 ft (91 m) upstream from Elk-Lovell Canal, 5.6 mi (9.0 km) southeast of Garland, and 6.3 mi (10.1 km) southwest of Byron.

DRAINAGE AREA.--101 mi^2 (262 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1958 to May 1960, October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,150 ft (1,265 m), from topographic map. Prior to May 31, 1960, at different datum.

REMARKS.--Records fair except those for periods of ice effect and no gage-height record, Nov. 19 to Dec. 6, Dec. 11 to Apr. 10, May 26 to June 3, June 7-10, July 23-30, Sept. 26-30, which are poor. Part of flow is return flow from areas irrigated by diversions from the Shoshone River.

AVERAGE DISCHARGE.--13 years (water years 1959, 1969-80), 27.9 ft^3/s (0.790 m^3/s), 20,210 acre-ft/yr (24.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,780 ft^3/s (135 m^3/s) July 3, 1975, gage height, 12.44 ft (3.792 m), from floodmarks, on basis of slope-area measurement of peak flow; minimum daily, 0.05 ft^3/s (0.001 m^3/s) Jan. 12, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 19, 1961, reached a discharge of 4,260 ft^3/s (121 m^3/s), at site 6.5 mi (10.5 km) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,700 ft^3/s (48.1 m^3/s) Sept. 16, gage height, 6.20 ft (1.890 m); minimum daily, 0.06 ft^3/s (0.002 m^3/s) Feb. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	2.8	.94	.27	.16	.30	1.4	41	133	35	51	49
2	48	2.8	.98	.29	.18	.35	2.0	39	80	35	55	46
3	48	2.5	1.0	.28	.20	.40	2.0	36	38	39	55	43
4	41	2.5	1.1	.25	.18	.36	2.8	34	35	36	56	43
5	38	2.8	1.2	.22	.20	.30	5.1	33	35	38	49	44
6	38	2.5	1.1	.24	.18	.30	6.8	27	49	36	53	44
7	39	2.5	.90	.20	.16	.32	7.8	25	41	35	55	44
8	43	2.5	.80	.16	.14	.37	5.0	36	32	32	53	48
9	49	2.3	.84	.14	.12	.38	3.0	38	38	35	51	44
10	44	2.3	.88	.14	.14	.45	2.9	72	40	35	45	45
11	45	2.0	.92	.16	.12	.60	3.4	156	40	39	51	48
12	43	2.3	.70	.18	.12	.60	2.5	77	31	40	43	53
13	39	2.5	.74	.20	.12	.56	1.4	67	25	43	41	64
14	39	2.5	.76	.22	.10	.70	1.4	46	30	48	44	69
15	39	2.0	.80	.25	.08	1.0	2.5	40	61	39	51	72
16	43	2.8	.55	.24	.06	.90	4.7	48	216	41	55	477
17	43	1.8	.40	.22	.08	.80	6.9	64	45	41	67	69
18	19	1.8	.43	.21	.12	.90	39	53	44	43	51	56
19	4.0	1.8	.45	.18	.17	1.1	35	45	35	44	52	59
20	3.1	1.7	.46	.16	.21	1.1	35	44	77	43	51	59
21	2.5	1.4	.48	.16	.21	1.0	33	44	61	46	45	61
22	2.3	1.2	.52	.18	.21	1.0	36	36	40	41	40	61
23	2.3	1.0	.51	.18	.18	1.0	45	35	44	39	41	58
24	2.3	1.1	.45	.21	.18	2.0	33	32	44	38	43	61
25	2.3	1.2	.45	.23	.18	1.9	35	198	39	35	38	56
26	2.3	1.3	.50	.21	.21	1.7	38	84	33	38	38	43
27	2.0	1.2	.40	.18	.23	2.0	38	45	43	44	40	41
28	2.5	1.0	.31	.12	.25	2.5	36	39	53	50	40	39
29	5.9	.90	.31	.10	.35	2.3	32	48	46	51	43	39
30	12	.90	.28	.12	---	1.8	32	102	39	51	52	39
31	3.7	---	.25	.14	---	2.0	---	127	---	52	52	---
TOTAL	793.2	57.90	20.41	6.04	4.84	30.99	528.6	1811	1567	1262	1501	1974
MEAN	25.6	1.93	.66	.19	.17	1.00	17.6	58.4	52.2	40.7	48.4	65.8
MAX	49	2.8	1.2	.29	.35	2.5	45	198	216	52	67	477
MIN	2.0	.90	.25	.10	.06	.30	1.4	25	25	32	38	39
AC-FT	1570	115	40	12	9.6	61	1050	3590	3110	2500	2980	3920

CAL YR 1979 TOTAL 9320.53 MEAN 25.5 MAX 251 MIN .25 AC-FT 18490
WTR YR 1980 TOTAL 9556.98 MEAN 26.1 MAX 477 MIN .06 AC-FT 18960

06284800 WHISTLE CREEK NEAR GARLAND, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-60, 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1969 to current year.
WATER TEMPERATURES: July 1969 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 12,300 micromhos Jan. 10, 1970; minimum daily, 279 micromhos Feb. 28, 1975.
WATER TEMPERATURES: Maximum, 30.0°C July 21, 1977; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 6,190 micromhos Jan. 15; minimum daily, 359 micromhos July 6, 7.
WATER TEMPERATURES: Maximum, 28.5°C June 25, July 5, 8; minimum, 0.0°C on many days during winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT												
02...	0810	50	800	8.3	10.5	220	73	58	19	73	2.1	3.9
30...	0820	15	1200	8.3	1.0	120	0	31	11	230	9.0	4.9
DEC												
03...	1000	1.0	5600	7.2	.0	1100	630	230	120	1000	13	4.9
JAN												
02...	1200	.29	6200	7.7	.0	930	520	190	110	880	13	9.4
FEB												
19...	1420	.17	5800	7.3	.0	990	600	200	120	910	13	8.4
APR												
10...	1400	2.9	3400	8.1	9.0	390	120	95	38	460	10	7.4
MAY												
06...	0905	33	860	8.4	12.0	210	61	55	18	88	2.6	3.4
JUN												
03...	1430	46	620	8.5	19.5	190	56	48	16	43	1.4	3.4
JUL												
02...	1315	36	690	8.3	20.0	150	38	38	13	73	2.6	3.4
30...	1200	52	540	8.1	21.0	160	37	43	12	45	1.6	2.9
SEP												
03...	0800	38	740	8.6	13.0	200	63	55	16	56	1.7	3.6

DATE	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)
OCT												
02...	150	240	5.5	.4	13	504	.69	68.0	.16	.070	.21	.020
30...	170	400	11	.6	4.9	803	1.09	32.5	1.6	.040	.12	.030
DEC												
03...	440	2700	51	.6	10	4400	5.98	11.9	5.1	--	--	.020
JAN												
02...	410	2400	41	.5	9.3	3910	5.32	3.06	4.4	.030	.09	.020
FEB												
19...	390	2500	47	.5	9.9	4050	5.51	1.86	4.5	.030	.09	.020
APR												
10...	270	1200	27	.5	6.8	2010	2.73	15.7	2.1	5.300	16	.020
MAY												
06...	150	240	6.9	.3	13	516	.70	46.0	.36	.400	1.2	.110
JUN												
03...	130	140	4.6	.3	14	348	.47	43.2	.09	.880	2.7	.030
JUL												
02...	110	180	5.5	.4	14	395	.54	38.4	.31	.240	.74	.080
30...	120	130	3.7	.2	13	323	.44	45.4	.30	.160	.49	.020
SEP												
03...	140	190	4.5	.4	14	424	.58	43.0	.17	.100	.31	.010

06284800 WHISTLE CREEK NEAR GARLAND, WY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C). WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	747	3320	5000	4620	4670	1430	4690	831	768	603	522	543
2	701	3760	5030	4720	4670	2430	4720	514	773	582	458	611
3	744	3660	4980	5040	5670	3680	1480	512	707	582	525	611
4	787	3980	4450	4930	5010	2860	1240	777	751	595	567	627
5	784	4080	5000	4960	4900	3700	1470	805	754	637	461	627
6	613	4000	4650	4940	5230	4140	1260	997	743	359	594	565
7	610	4250	4370	5020	5210	4470	2270	1010	710	359	456	563
8	783	4230	4370	4560	5280	4160	1780	819	701	634	615	758
9	792	4200	4320	5050	5200	4390	1200	711	735	639	530	758
10	846	4380	4900	4560	5220	1010	2600	637	762	597	530	765
11	618	4370	4590	4680	5140	1010	2640	637	751	570	465	817
12	653	4310	5010	4620	5190	1000	2240	728	806	639	660	629
13	653	4200	4830	4680	5080	2270	4190	635	815	428	655	582
14	690	4090	4500	4710	4880	2270	3180	640	799	431	519	568
15	693	4340	4720	6190	4830	3120	3250	907	754	440	522	676
16	664	4330	4830	6160	4830	3150	1690	603	692	655	511	624
17	627	4420	4370	5430	4880	3680	2790	569	776	551	509	699
18	2830	4100	4520	5430	4910	3260	1700	569	889	540	513	699
19	2810	4580	4520	5190	4910	3620	725	575	694	538	521	657
20	3120	5010	4540	5250	4630	3270	725	528	803	507	574	645
21	3450	5010	4650	5060	879	3710	897	522	699	501	580	645
22	3530	4780	4690	5150	1700	4290	615	775	576	704	590	689
23	3520	5050	4690	5220	1610	3770	690	773	584	626	698	698
24	3750	4420	5200	5200	857	4210	575	519	605	639	588	663
25	3760	4430	4860	5050	959	4320	577	632	616	504	804	663
26	3860	4400	4680	5310	952	4210	572	599	702	520	719	726
27	3830	4700	4800	5030	1020	4160	563	521	388	489	607	663
28	3840	4660	4820	5300	1040	4350	733	758	508	500	713	663
29	1760	4630	4700	5360	926	4160	733	766	506	522	713	672
30	1790	4650	4880	5290	---	4540	761	771	603	490	554	672
31	3230	---	5480	5240	---	4470	---	762	---	456	548	---
MEAN	1840	4340	4740	5100	3800	3390	1750	690	699	543	575	659

WTR YR 1980 MEAN 2340 MAX 6190 MIN 359

06284800 WHISTLE CREEK NEAR GARLAND, WY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	7.0	1.5	.0	1.5	3.0	6.0	17.0	15.0	27.0	22.0	19.5
2	16.5	7.5	1.5	.0	1.5	3.5	5.5	20.5	19.0	20.5	26.0	19.0
3	16.5	8.5	2.0	.0	1.5	.0	6.5	19.5	22.0	24.5	18.0	21.0
4	17.0	4.0	2.0	1.0	2.0	.0	9.5	13.5	20.0	26.0	15.5	21.0
5	19.5	7.0	2.5	.5	2.0	.5	7.5	23.5	21.0	28.5	23.0	20.0
6	16.5	7.5	2.0	.0	1.5	1.5	11.0	18.0	18.5	28.0	24.0	15.0
7	16.0	6.5	1.5	.0	2.0	1.0	6.5	19.5	19.5	23.5	24.0	16.0
8	11.0	6.5	1.5	1.0	1.0	1.0	10.0	20.0	21.0	28.5	23.5	18.5
9	13.0	4.5	1.0	.0	2.5	.5	9.0	19.5	27.0	26.5	23.0	22.0
10	15.5	2.5	1.0	1.0	2.0	3.0	12.0	9.5	26.5	27.0	23.5	23.0
11	15.0	2.0	.5	1.0	2.0	3.0	10.5	10.5	25.0	28.0	26.0	19.5
12	16.0	3.5	1.0	.5	1.5	2.0	11.0	13.0	26.0	24.0	26.5	21.0
13	16.5	3.0	1.0	1.0	1.5	2.0	15.0	16.0	26.5	17.0	25.0	20.0
14	15.5	7.0	2.5	1.5	.0	3.0	16.0	18.5	21.0	17.0	22.0	22.0
15	13.0	2.0	1.0	1.5	.0	2.5	11.0	21.5	21.0	23.5	18.0	18.0
16	15.0	2.0	1.0	1.0	1.5	2.0	16.5	19.0	21.0	16.5	22.0	13.0
17	14.0	2.5	.5	1.0	2.0	2.5	17.0	17.0	24.5	19.0	22.0	15.0
18	13.0	7.5	1.0	.5	2.5	5.5	17.5	18.5	22.5	18.5	19.0	17.0
19	10.5	1.5	2.0	.5	3.0	2.5	18.5	15.0	26.0	20.5	17.5	18.5
20	9.0	.0	2.5	.0	3.0	4.0	18.5	19.0	25.5	24.0	19.5	17.0
21	11.5	.0	1.5	1.0	3.0	3.0	19.5	20.0	23.0	25.0	20.0	15.0
22	10.5	.0	1.5	1.0	3.0	5.5	19.5	20.0	25.5	28.0	24.0	16.5
23	13.0	1.0	2.0	1.0	4.0	5.5	18.5	18.0	24.5	25.0	22.0	17.5
24	9.0	1.5	3.0	1.0	3.0	4.5	19.0	18.0	27.0	19.5	23.5	17.5
25	14.0	.0	2.0	.0	2.5	5.0	19.0	14.0	28.5	23.0	20.5	16.0
26	12.0	1.5	1.5	1.5	3.0	4.0	10.0	15.0	27.5	24.0	24.0	18.0
27	12.0	1.0	1.0	1.0	1.0	8.0	10.5	20.5	22.0	22.0	20.0	16.0
28	7.0	1.0	1.0	.0	1.0	8.0	23.0	18.0	22.5	26.0	24.0	16.0
29	4.0	1.0	1.5	.0	2.0	9.0	22.0	17.0	23.0	22.0	24.0	18.5
30	6.0	1.0	1.5	.5	---	5.0	18.0	19.0	21.0	23.5	17.0	17.5
31	6.5	---	1.5	1.0	---	5.0	---	14.5	---	26.5	18.0	---
MEAN	13.0	3.5	1.5	.5	2.0	3.5	14.0	17.5	23.0	23.5	22.0	18.0

WTR YR 1980 MEAN 12.0 MAX 28.5 MIN .0

06285100 SHOSHONE RIVER NEAR LOVELL, WY

LOCATION.--Lat 44°50'20", long 108°26'00", in NW¼NW¼ sec.16, T.56 N., R.96 W., Big Horn County, Hydrologic Unit 10080014, on right bank 30 ft (9 m) upstream from bridge on U.S. Highway 310 and 1.5 mi (2.4 km) west of Lovell.

DRAINAGE AREA.--2,350 mi² (6,090 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,850 ft (1,173 m), from topographic map. Prior to Oct. 1, 1976, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records fair except those for December to February, which are poor. Flow regulated by Buffalo Bill Reservoir. (See station 06281500.) Natural flow of stream affected by storage reservoirs, power development, diversions above station for irrigation of about 143,000 acres (579 km²), of which about 8,000 acres (32.4 km²) are below station, and return flow from irrigated areas.

AVERAGE DISCHARGE.--14 years, 1,017 ft³/s (28.80 m³/s), 736,800 acre-ft/yr (908 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,400 ft³/s (379 m³/s) July 1, 1967, gage height, 7.49 ft (2.283 m) present datum; maximum gage height, 9.09 ft (2.771 m) Feb. 3, 1972 (backwater from ice) present datum; minimum daily discharge, 27 ft³/s (0.76 m³/s) May 31, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,590 ft³/s (130 m³/s) May 10, gage height, 4.49 ft (1.369 m); maximum gage height, 6.44 ft (1.963 m) Jan. 10 (backwater from ice); minimum daily discharge, 124 ft³/s (3.51 m³/s) May 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	766	455	589	480	490	490	436	202	783	2890	670	808
2	766	487	603	510	510	490	596	279	834	3040	750	791
3	733	547	560	530	540	460	581	216	750	3010	758	647
4	725	603	540	530	540	430	547	230	610	3350	1080	526
5	625	625	547	530	560	440	596	269	533	3030	976	461
6	603	632	581	530	550	460	567	179	513	2660	976	418
7	663	647	581	510	550	480	513	124	480	2440	904	430
8	663	632	547	480	540	500	513	149	455	2170	922	461
9	640	625	554	470	540	500	526	136	436	2090	878	424
10	709	625	560	480	530	487	686	1870	239	2300	878	430
11	886	618	540	500	530	610	725	1280	365	2090	958	596
12	742	603	540	510	530	603	717	800	382	1850	843	717
13	647	596	540	530	520	474	717	468	305	1720	817	766
14	655	567	540	550	500	480	603	412	279	1440	817	825
15	694	540	540	570	480	533	474	442	540	1070	878	886
16	733	526	500	550	460	487	526	554	1010	694	949	2430
17	709	547	480	540	480	442	526	843	758	625	1060	1260
18	663	618	480	520	490	461	567	742	574	694	985	1040
19	337	603	500	510	510	474	994	834	1400	717	904	1000
20	474	596	500	500	530	455	1020	618	1640	825	949	922
21	487	589	520	500	530	455	834	455	1790	1010	940	895
22	468	618	540	520	530	455	733	461	1640	860	869	904
23	348	625	540	520	500	461	742	436	2110	834	775	791
24	360	589	540	540	490	448	625	382	2840	625	709	791
25	547	581	560	580	480	448	581	1370	2840	560	640	758
26	382	560	540	550	480	442	468	1150	3490	610	533	694
27	430	603	520	520	500	442	418	766	4040	694	513	640
28	424	610	500	490	520	442	418	526	3810	766	526	603
29	520	581	490	470	520	436	239	554	3170	725	540	603
30	480	581	480	460	---	442	216	775	2840	686	618	589
31	455	---	470	470	---	436	---	742	---	709	750	---
TOTAL	18334	17629	16522	15950	14930	14663	17704	18264	41456	46784	25365	23106
MEAN	591	588	533	515	515	473	590	589	1382	1509	818	770
MAX	886	647	603	580	560	610	1020	1870	4040	3350	1080	2430
MIN	337	455	470	460	460	430	216	124	239	560	513	418
AC-FT	36370	34970	32770	31640	29610	29080	35120	36230	82230	92800	50310	45830

CAL YR 1979 TOTAL 252832 MEAN 693 MAX 1530 MIN 184 AC-FT 501500
WTR YR 1980 TOTAL 270707 MEAN 740 MAX 4040 MIN 124 AC-FT 536900

06285100 SHOSHONE RIVER NEAR LOVELL, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1966 to current year.
WATER TEMPERATURES: October 1966 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,580 micromhos Apr. 15, 1977; minimum daily, 238 micromhos June 26, 1974.
WATER TEMPERATURES: Maximum, 30.0°C June 6, 1969; minimum, 0.0°C on many days during winter period most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,330 micromhos Jan. 28; minimum daily, 286 micromhos June 28.
WATER TEMPERATURES: Maximum 18.0°C on several days in July and August; minimum, 0.0°C on many days during November to March.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
OCT										
02...	1430	793	780	8.4	13.5	65	9.7	940	240	59
30...	1005	471	840	6.8	4.5	420	9.4	540	370	150
DEC										
03...	1330	556	1080	8.2	2.0	55	13.6	--	390	170
JAN										
02...	1200	516	1130	8.4	.0	25	13.4	170	410	160
FEB										
20...	0840	E450	1090	8.1	.0	35	11.4	40	410	160
29...	1030	522	--	--	2.5	--	--	--	--	--
APR										
09...	1355	534	1220	8.2	8.0	1800	11.4	57	430	180
MAY										
05...	1100	346	920	8.5	15.0	480	9.9	K300	280	100
JUN										
05...	0830	558	810	8.5	14.0	370	9.8	K3000	230	75
30...	1030	2960	390	8.4	16.0	480	8.8	490	100	20
JUL										
22...	1130	958	--	--	20.0	--	--	--	--	--
29...	1330	862	880	8.4	20.0	380	9.2	420	210	50
SEP										
02...	1050	838	850	8.3	14.5	250	9.3	360	240	74

E-Estimate.
K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT										
02...	61	21	73	2.1	4.0	180	220	6.9	.5	15
30...	93	33	120	2.7	5.3	220	390	12	.8	15
DEC										
03...	100	34	90	2.0	3.6	220	300	14	.7	15
JAN										
02...	110	33	81	1.7	5.6	250	330	14	.7	15
FEB										
20...	110	34	84	1.8	6.4	250	310	14	.8	13
29...	--	--	--	--	--	--	--	--	--	--
APR										
09...	120	32	92	1.9	6.5	250	340	17	.7	14
MAY										
05...	73	24	100	2.6	4.6	180	260	15	.6	15
JUN										
05...	61	20	72	2.0	3.9	160	200	10	.4	12
30...	28	8.0	26	1.1	1.8	83	72	1.4	.3	15
JUL										
22...	--	--	--	--	--	--	--	--	--	--
29...	56	17	61	1.8	3.0	160	170	7.4	.5	13
SEP										
02...	63	21	70	2.0	3.9	170	190	51	.5	14

06285100 SHOSHONE RIVER NEAR LOVELL, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT										
02...	514	.70	1100	.91	.130	.40	.030	167	358	73
30...	807	1.10	1030	1.2	.280	.86	.010	148	188	93
DEC										
03...	738	1.00	1110	11	--	--	.010	192	288	73
JAN										
02...	745	1.01	1040	1.2	.050	.15	.020	134	187	55
FEB										
20...	727	.99	883	1.0	.060	.18	.030	--	--	--
29...	--	--	--	--	--	--	--	1120	1580	97
APR										
09...	776	1.06	1120	.76	.350	1.1	.060	522	753	--
MAY										
05...	607	.83	567	1.4	.340	1.0	.110	340	318	93
JUN										
05...	479	.65	722	.71	.170	.52	.050	260	392	87
30...	203	.28	1620	.03	.030	.09	.030	764	6110	44
JUL										
22...	--	--	--	--	--	--	--	212	548	59
29...	428	.58	996	.96	.130	.40	.040	158	368	73
SEP										
02...	520	.71	1180	.98	.110	.34	.020	87	197	86

DATE	TIME	TEMPERATURE, WATER (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
APR						
09...	1355	8.0	534	68	89	100

06285100 SHOSHONE RIVER NEAR LOVELL, WY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	730	1020	1040	1020	1220	1170	1050	934	754	322	652	718
2	746	982	1040	1030	1150	1180	1070	928	710	307	668	701
3	729	1010	1010	1010	1110	1190	1010	911	685	313	671	724
4	754	995	1030	1020	1120	1160	1040	917	732	301	644	727
5	780	1030	1110	1020	990	1110	1090	880	724	301	657	749
6	803	1040	1040	1030	1100	1100	1120	917	735	322	673	754
7	805	1030	1180	1070	1090	1130	1160	972	780	338	676	757
8	788	1010	1070	1030	1120	1120	1160	952	780	354	679	754
9	769	1020	1050	1250	1140	1140	1100	940	746	401	657	783
10	774	1010	1040	1250	1110	1180	1040	830	851	375	684	769
11	749	1000	1050	1220	1120	1140	930	718	856	364	676	765
12	746	1010	1030	1190	1120	1170	879	779	795	391	690	784
13	814	991	1020	1120	1120	1170	877	855	806	422	706	763
14	808	1000	1000	1120	1150	1140	860	880	843	468	711	716
15	791	1020	1030	1160	1200	1190	1010	880	788	513	722	694
16	791	1030	1030	1190	1240	1160	929	815	713	577	719	677
17	780	1060	1070	1200	1190	1160	935	735	655	636	797	717
18	797	1020	1020	1190	1130	1140	986	792	674	614	700	718
19	978	1040	1030	1200	1090	1160	899	697	576	614	684	698
20	1040	1040	1020	1210	1050	1140	667	732	471	590	700	710
21	1030	1020	1020	1200	1080	1140	644	821	466	560	717	704
22	1020	1020	1040	1150	1090	1140	708	815	461	573	695	692
23	1020	1030	1040	1140	1170	1120	676	801	442	577	690	705
24	1080	1030	1020	1140	1200	1120	699	819	370	609	728	729
25	1000	997	1040	1160	1180	1080	699	788	358	652	728	729
26	1060	1040	1030	1170	1160	1070	684	666	321	652	766	741
27	1020	1020	1020	1320	1060	1110	727	705	304	647	780	764
28	1020	1030	1020	1330	1150	1100	724	733	286	631	811	768
29	1090	1040	1020	1250	1180	1080	836	780	301	647	796	770
30	1200	1030	1080	1260	---	1100	870	768	312	660	784	764
31	1030	---	1040	1250	---	1090	---	762	---	649	735	---
MEAN	888	1020	1040	1160	1130	1140	903	823	610	496	710	735

WTR YR 1980 MEAN 887 MAX 1330 MIN 286

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	4.0	1.0	.0	.0	.5	3.0	12.0	11.5	16.0	18.0	---
2	13.0	4.0	1.0	.0	.0	.5	5.0	11.0	12.0	16.0	17.0	---
3	10.5	4.5	1.0	.5	.5	2.5	6.0	11.0	13.0	17.0	18.0	---
4	10.5	6.0	4.0	.5	1.0	.0	7.0	13.0	13.5	16.0	12.0	13.0
5	11.5	4.0	4.0	.5	1.0	.5	8.5	11.5	14.0	16.0	14.0	13.0
6	12.0	4.0	2.0	.0	1.0	1.0	9.0	13.0	14.5	16.5	15.0	14.0
7	11.0	4.5	2.0	.0	1.5	.5	3.5	11.5	12.0	17.0	15.0	13.0
8	12.0	4.5	2.0	.0	.0	2.5	4.0	12.5	13.0	17.0	16.0	15.0
9	8.0	4.0	2.0	.0	.5	4.0	5.5	13.0	15.0	17.5	16.0	13.0
10	8.0	4.0	2.0	.0	.5	4.0	6.0	9.5	15.5	18.0	16.0	15.0
11	10.0	4.0	.0	.0	.5	5.5	5.0	6.0	16.0	17.0	16.0	15.0
12	11.5	3.5	.0	.5	.5	4.0	6.0	8.5	16.0	18.0	17.0	15.0
13	12.0	2.0	1.5	.5	.0	1.0	7.0	8.0	15.0	17.0	17.0	15.0
14	11.5	2.5	1.5	.5	.0	4.0	8.5	10.0	15.5	17.0	16.0	14.0
15	11.5	3.0	.0	1.0	.0	6.0	10.5	12.0	14.0	17.0	16.0	15.0
16	11.0	2.5	.0	1.0	.0	4.0	7.0	12.0	15.0	17.0	15.0	10.0
17	10.5	3.0	.0	.0	.0	2.5	9.0	12.0	15.0	17.0	16.0	10.5
18	10.5	5.0	.0	.0	.5	3.5	9.0	11.5	17.0	15.0	17.0	13.0
19	11.0	4.0	.5	.0	1.0	5.0	8.0	12.0	15.5	18.0	14.0	14.0
20	8.0	2.5	.0	.0	1.0	4.5	10.0	13.0	16.0	16.0	14.0	13.0
21	8.0	.0	.5	.0	1.0	5.0	10.5	14.5	16.5	16.0	14.5	13.0
22	7.0	1.0	1.5	.0	1.0	4.5	12.0	15.5	16.0	18.0	15.5	11.0
23	7.5	1.0	2.0	.5	1.0	5.0	11.0	15.5	16.0	18.0	16.0	12.0
24	10.0	1.0	1.5	.5	2.0	5.0	11.0	16.0	16.5	17.0	15.0	12.5
25	10.5	4.0	.0	.0	2.0	4.0	11.0	11.5	16.0	17.0	15.0	10.5
26	9.5	.0	.0	.0	3.0	3.5	10.0	9.0	16.0	17.0	15.0	10.5
27	9.5	.0	.0	.0	6.0	4.0	11.0	10.5	16.0	17.0	15.5	12.0
28	9.0	.0	.0	.0	5.5	5.0	11.0	13.0	15.0	17.0	14.0	12.0
29	7.0	.0	.0	.5	3.0	6.0	12.0	12.5	15.0	18.0	14.5	12.0
30	5.0	.5	.5	.0	---	6.0	13.0	12.0	16.0	17.0	---	12.0
31	4.0	---	.0	.0	---	3.0	---	12.0	---	17.0	---	---
MEAN	10.0	3.0	1.0	.0	1.0	3.5	8.5	12.0	15.0	17.0	15.5	13.0

WTR YR 1980 MEAN 8.0 MAX 18.0 MIN .0

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEAVER, WY

LOCATION.--Lat 44°53'08", long 108°33'01", in NE¼NE¼NW¼ sec.34, T.57 N., R.97 W., Big Horn County, Hydrologic Unit 10080014, on left bank 300 ft (91 m) downstream from Polecat Creek, 800 ft (244 m) upstream from Sidon Canal crossing, and 2.4 mi (3.9 km) east of Deaver.

DRAINAGE AREA.--341 mi^2 (883 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1958 to May 1960, October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,020 ft (1,225 m), from topographic map.

REMARKS.--Records good. Flow is mostly return flow from land irrigated by canals diverting water from Shoshone River.

AVERAGE DISCHARGE.--13 years (water years 1959, 1969-80), 66.0 ft^3/s (1.869 m^3/s), 47,820 acre-ft/yr (59.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,250 ft^3/s (63.7 m^3/s) June 8, 1958, gage height, 9.22 ft (2.810 m), from floodmark, from rating curve extended above 500 ft^3/s (14.2 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft^3/s (0.014 m^3/s) Feb. 2-6, Feb. 21 to Mar. 5, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 217 ft^3/s (6.15 m^3/s) May 25, gage height, 3.70 ft (1.128 m); minimum daily, 9.8 ft^3/s (0.28 m^3/s) Jan. 31, Feb. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	135	33	15	16	9.8	25	24	52	160	71	75	129
2	137	32	16	16	11	27	27	63	160	70	80	128
3	128	32	23	17	13	25	25	62	160	75	79	126
4	123	32	22	16	14	18	24	55	172	75	88	131
5	121	32	24	18	16	16	27	59	162	82	86	123
6	118	33	24	16	16	17	29	62	143	79	85	111
7	115	33	24	18	16	21	28	63	135	72	84	96
8	113	33	22	16	16	23	28	71	134	66	92	99
9	105	31	21	14	16	23	28	70	123	72	97	96
10	115	31	20	14	16	27	26	93	106	63	109	99
11	133	30	12	14	16	35	24	65	91	58	106	113
12	136	28	20	15	16	37	25	63	79	60	106	111
13	147	27	18	16	16	36	25	67	75	64	108	125
14	148	27	18	17	16	39	25	71	71	64	107	145
15	152	25	16	17	14	40	24	71	102	63	110	144
16	162	25	12	18	13	34	24	71	120	60	139	152
17	170	26	15	17	12	33	23	82	106	64	145	142
18	161	28	17	17	12	33	23	71	102	67	136	135
19	79	28	17	15	13	33	61	88	107	67	137	152
20	96	23	18	16	15	33	106	93	112	63	145	147
21	62	20	18	16	19	34	84	81	115	63	140	152
22	39	19	18	16	21	33	86	78	114	64	126	147
23	40	18	19	16	20	33	90	71	98	66	135	142
24	41	19	18	17	20	31	83	72	87	67	138	144
25	38	20	19	15	21	28	62	158	75	62	127	137
26	36	18	18	15	25	24	51	113	66	69	120	145
27	33	16	15	15	30	28	52	95	58	71	118	144
28	35	14	17	13	31	28	51	140	59	69	119	142
29	45	14	16	12	25	28	51	148	66	67	120	138
30	36	14	16	11	---	28	52	150	68	66	124	132
31	35	---	16	9.8	---	23	---	150	---	67	122	---
TOTAL	3034	761	564	478.8	498.8	893	1288	2648	3226	2086	3503	3927
MEAN	97.9	25.4	18.2	15.4	17.2	28.8	42.9	85.4	108	67.3	113	131
MAX	170	33	24	18	31	40	106	158	172	82	145	152
MIN	33	14	12	9.8	9.8	16	23	52	58	58	75	96
AC-FT	6020	1510	1120	950	989	1770	2550	5250	6400	4140	6950	7790

CAL YR 1979 TOTAL 24802.0 MEAN 68.0 MAX 202 MIN 12 AC-FT 49190
WTR YR 1980 TOTAL 22907.6 MEAN 62.6 MAX 172 MIN 9.8 AC-FT 45440

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEAVER, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-60, 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1969 to current year.
WATER TEMPERATURES: July 1969 to November 1976, September 1977 to current year.

REMARKS.--Daily temperature readings not available Oct. 1 to Sept. 30.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 6,650 micromhos Apr. 26, 1973; minimum daily, 819 micromhos May 4, 1975.
WATER TEMPERATURES: Maximum, 28.5°C July 17, 1974; minimum, 0.0°C on many days during winter period in most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,600 micromhos Oct. 28; minimum daily, 996 micromhos Apr. 22.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT								
03...	0915	131	1300	8.0	8.5	420	240	97
30...	1200	38	3400	8.2	5.0	1100	800	210
DEC								
03...	1340	19	3500	6.7	1.0	1200	860	240
JAN								
02...	1020	16	3300	7.8	1.5	1000	670	240
FEB								
19...	1010	13	3500	7.5	1.5	1100	770	210
APR								
10...	1015	25	3100	8.3	7.0	720	440	25
MAY								
05...	1430	61	2000	8.4	20.5	610	400	130
JUN								
03...	1020	156	1480	8.2	14.0	410	230	98
JUL								
02...	1000	77	1850	8.1	19.0	520	320	110
30...	0900	68	1490	8.1	16.0	480	270	110
SEP								
02...	1300	130	1500	8.4	19.0	460	270	110

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SODIUM+ POTASSIUM DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
03...	42	110	2.4	110	4.6	180	490	9.6	.5
30...	140	390	5.1	400	7.2	300	1600	31	.9
DEC									
03...	150	440	5.5	440	3.3	360	1600	25	.8
JAN									
02...	100	450	6.2	460	6.1	340	1500	26	.8
FEB									
19...	140	400	5.2	410	5.7	330	1500	23	.8
APR									
10...	160	510	8.3	520	6.0	280	1400	32	.7
MAY									
05...	70	230	4.0	--	6.5	210	810	19	.6
JUN									
03...	41	130	2.8	--	4.3	180	510	9.9	.4
JUL									
02...	59	180	3.4	--	5.0	200	690	14	.6
30...	50	160	3.2	--	4.4	210	600	8.9	.4
SEP									
02...	45	130	2.6	--	5.4	190	520	11	.5

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEAVER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
OCT								
03...	13	877	1.19	310	.48	.090	.28	.030
30...	13	2580	3.51	265	1.7	.060	.18	.010
DEC								
03...	12	2810	3.82	144	--	--	--	.000
JAN								
02...	12	2550	3.47	110	3.1	.020	.06	.010
FEB								
19...	13	2500	3.40	88.4	2.9	.030	.09	.010
APR								
10...	8.2	2320	3.16	157	1.2	.120	.37	.030
MAY								
05...	14	1410	1.92	232	1.4	.280	.86	.100
JUN								
03...	14	918	1.25	387	.52	.340	1.0	.060
JUL								
02...	12	1200	1.63	249	.92	.080	.25	.050
30...	13	1080	1.47	198	1.0	.150	.46	.040
SEP								
02...	14	954	1.30	335	.79	.160	.49	.010

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1260	2870	3230	2950	3190	2980	2540	1810	1120	1620	1420	1260
2	1260	2930	---	2950	3140	2970	2570	1810	1100	1620	1510	1260
3	1250	2930	3030	2510	3200	2970	2540	1810	1200	1410	1510	1380
4	1280	2870	3030	2980	3180	2650	2750	1900	1240	1420	1510	1380
5	1280	2860	3030	3160	3150	2680	2690	1900	1250	1430	1510	1370
6	1270	2860	3150	3230	3120	2680	2750	1900	1250	1420	1400	1370
7	1360	2850	3140	3230	3130	3180	2700	2180	1240	1410	1400	1380
8	1330	2700	3140	3230	3130	3160	2810	2210	1340	1550	1400	1450
9	1340	2710	3320	3030	3150	3200	2810	2180	1510	1550	1360	1450
10	1280	2690	3380	3060	3160	2320	2690	2700	1360	1540	1260	1450
11	1270	2690	3350	3110	3090	2320	2720	2720	1340	1540	1330	1390
12	1160	2710	3140	3080	3150	2330	2710	1870	1340	1490	1330	1380
13	1150	2700	3120	3060	3150	1970	2700	1900	1400	1490	1340	1380
14	1160	2670	3150	3070	3130	1950	2670	1870	1450	1520	1340	1100
15	1170	2880	3140	3060	3030	1940	2660	1890	1510	1500	1350	1110
16	---	2910	3130	3060	3030	2600	2630	1420	1540	1520	1250	1110
17	1880	2910	3130	3060	3050	2570	2600	1460	1510	1520	1250	1130
18	1880	2790	3130	3040	2960	2550	2630	1440	1470	1520	1250	1150
19	1890	2750	2990	---	2980	2140	1140	1440	1470	1520	1230	1160
20	2470	2810	2990	2860	2990	2120	1140	1620	1500	1590	1220	1090
21	2490	3170	---	2880	3000	2110	1010	1640	1460	1650	1210	1100
22	2460	3150	---	2910	2980	2270	996	1620	1460	1640	1210	1130
23	2690	3140	2990	3180	3020	2280	1500	1610	1290	1660	1210	1100
24	2700	3180	2990	3180	2880	2260	1500	1620	1290	1640	1290	1110
25	2700	3220	2970	3160	2910	2470	1510	1480	1600	1520	1290	1100
26	---	3240	3160	3180	2910	2500	1510	1490	1610	1520	1290	1100
27	3520	3280	3150	3170	2340	2520	1490	1480	1610	1520	1310	1110
28	3600	3240	3130	3470	2350	2410	1810	1390	1600	1510	1300	1120
29	3600	3230	3080	3210	2370	2420	1810	1390	1620	1510	1250	1120
30	2830	3230	3100	3480	---	2420	1830	1400	1620	---	1260	1120
31	2870	---	3100	3510	---	2420	---	1120	---	---	---	---
MEAN	1940	2940	3120	3100	3000	2500	2180	1750	1410	1530	1330	1230

WTR YR 1980 MEAN 2160 MAX 3600 MIN 996

06286200 SHOSHONE RIVER AT KANE, WY

LOCATION.--Lat 44°51'31", long 108°19'52", in NE¼SE¼SE¼ sec.6, T.56 N., R.95 W., Big Horn County, Hydrologic Unit 10080014, at bridge on county road, 3.4 mi (5.5 km) northeast of Lovell, 6.5 mi (10.5 km) west of Kane, 6.6 mi (10.6 km) upstream from high-water line of Bighorn Lake at elevation 3,640 ft (1,109 m), and 7.8 mi (12.6 km) upstream from former discharge station.

DRAINAGE AREA.--2,989 mi² (7,742 km²), at former discharge station.

PERIOD OF RECORD.--Water years 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, WATER (DEG C)	PCB TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
24...	1345	401	11.0	.00	0	--	.0	.00	.0	.0	0
MAY											
21...	0945	536	16.0	.00	0	.0	.0	.00	.0	.0	0
SEP											
04...	1300	E760	15.0	.00	0	.0	.0	.00	.0	.0	1

E-Estimate.

DATE	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL (UG/L)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT											
24...	.00	.1	.00	.1	.00	.0	.00	.00	.1	.00	.0
MAY											
21...	.00	.0	.00	.1	.00	.0	.00	.00	.0	.00	.0
SEP											
04...	.00	.1	.00	.2	.00	.0	.00	.00	.0	.00	.0

DATE	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL (UG/L)
OCT										
24...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00
MAY										
21...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00
SEP										
04...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00

DATE	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOX-APHENE, TOTAL (UG/L)
OCT										
24...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0
MAY										
21...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0
SEP										
04...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0

06286200 SHOSHONE RIVER AT KANE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT										
24...	0	.00	.00	0	.01	.0	.00	0	.00	.0
MAY										
21...	0	.00	.01	<0	.00	<.0	.00	0	.00	.0
SEP										
04...	0	.00	.05	0	.00	.0	.01	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
OCT				
24...	.00	.0	.00	.0
MAY				
21...	.01	.0	.00	.0
SEP				
04...	.01	.0	.01	.0

06286400 BIGHORN LAKE NEAR ST. XAVIER, MT

LOCATION.--Lat 45°18'27", long 107°57'26", in SW¼SE¼ sec.18, T.6 S., R.31 E., Big Horn County, Hydrologic Unit 10080010, in block 13 of Yellowtail Dam on Bighorn River, 1.3 mi (2.1 km) upstream from Grapevine Creek, 15.5 mi (24.9 km) southeast of St. Xavier, and at mile 81.0 (130.3 km).

DRAINAGE AREA.--19,626 mi^2 (50,831 km^2).

PERIOD OF RECORD.--November 1965 to current year (monthend contents only). Prior to October 1969, published as "Yellowtail Reservoir."

GAGE.--Water-stage recorder in powerhouse control room. Datum of gage is referenced to National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Reservoir is formed by thin concrete-arch dam; construction began in 1961; completed in 1967. Storage began Nov. 3, 1965. Usable capacity, 1,356,000 acre-ft (1.67 km^3) between elevation 3,296.50 ft (1,004.773 m), river outlet invert, and 3,657.00 ft (1,114.654 m), top of flood control. Elevation of spillway crest, 3,593.00 ft (1,095.146 m). Normal maximum operating level, 1,097,000 acre-ft (1.35 km^3), elevation, 3,640.00 ft (1,109.472 m). Minimum operating level, 483,400 acre-ft (596 hm^3), elevation, 3,547.00 ft (1,081.126 m). Dead storage, 18,970 acre-ft (23.4 hm^3) below elevation 3,296.50 ft (1,004.773 m). Figures given herein represent usable contents. Water is used for power production, flood control, irrigation, and recreation.

COOPERATION.--Elevations and capacity table furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,346,000 acre-ft (1.66 km^3) July 6, 1967, elevation, 3,656.43 ft (1,114.480 m); minimum since first filling, 660,700 acre-ft (815 hm^3) Mar. 11, 1970, elevation, 3,584.45 ft (1,092.540 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,086,000 acre-ft (1.34 km^3) July 14, elevation, 3,639.16 ft (1,109.216 m); minimum, 752,300 acre-ft (928 hm^3) May 8, elevation, 3,600.13 ft (1,097.320 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	3,632.40	997,300	--
Oct. 31	3,634.37	1,009,000	+31,700
Nov. 30	3,629.74	1,030,000	+21,000
Dec. 31	3,629.74	982,200	-47,800
CAL YR 1979			+48,500
Jan. 31	3,622.59	917,300	-64,900
Feb. 29	3,615.64	862,400	-54,900
Mar. 31	3,610.70	824,200	-38,200
Apr. 30	3,601.17	760,100	-64,100
May 31	3,614.16	848,600	+88,500
June 30	3,633.10	1,017,000	+168,400
July 31	3,635.90	1,048,000	+31,000
Aug. 31	3,636.17	1,051,000	+3,000
Sept. 30	3,607.06	1,061,000	+10,000
WTR YR 1980			+83,700

06287000 BIGHORN RIVER NEAR ST. XAVIER, MT

LOCATION.--Lat 45°19'00", long 107°55'05", in NW¼NE¼ sec.16, T.6 S., R.31 E., Big Horn County, Hydrologic Unit 10080015, on right bank 800 ft (244 m) downstream from Yellowtail afterbay dam, 1,500 ft (460 m) downstream from Lime Kiln Creek, 14 mi (23 km) southwest of St. Xavier, and at mile 83.9 (135.0 km).

DRAINAGE AREA.--19,667 mi^2 (50,938 km^2). Area at site used prior to Apr. 16, 1963, 19,626 mi^2 (50,831 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,158.38 ft (962.558 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Apr. 16, 1963, and June 13, 1964, to Mar. 31, 1965, water-stage recorder at site 1.2 mi (1.9 km) upstream at different datum. Apr. 1, 1965, to July 31, 1966, water-stage recorder at site 1,300 ft (400 m) downstream at present datum.

REMARKS.--Records good. Figures of discharge given herein are sum of river flow and flow of Bighorn Canal. Some regulation by 14 reservoirs in Wyoming with combined capacity of 1,400,000 acre-ft (1,726 hm^3) and complete regulation by Bighorn Lake (see preceding page) since Nov. 3, 1965. Diversions for irrigation of about 375,000 acres (1,520 km^2) above station.

AVERAGE DISCHARGE.--46 years, 3,588 ft^3/s (101.6 m^3/s), 2,600,000 acre-ft/yr (3.21 km^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,400 ft^3/s (1,060 m^3/s) June 16, 1935; minimum observed, 49 ft^3/s (1.39 m^3/s) Mar. 29, 1966, result of discharge measurement (dam closure); minimum daily, 112 ft^3/s (3.17 m^3/s) Apr. 2, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,710 ft^3/s (162 m^3/s) July 16; minimum daily, 699 ft^3/s (19.8 m^3/s) Oct. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2280	1070	2430	2960	3290	3240	3270	2360	1780	5250	3140	3060
2	2270	1080	2430	2970	3260	3240	3270	2390	1890	5250	3170	3050
3	2270	1100	2910	2960	3270	3240	3270	2400	2030	5240	3170	3050
4	2280	1160	2930	2970	3260	3230	3270	2400	2510	5250	3180	3050
5	2270	1150	2920	2960	3270	3230	3270	2390	3020	4770	3180	3050
6	2270	1120	2920	2970	3290	3230	3290	2370	3000	4440	3170	3040
7	2270	1120	2910	2960	3270	3230	3260	2380	3010	5240	3160	3030
8	2260	1080	2910	2970	3290	3240	3300	2360	3010	5260	3180	3040
9	2260	1120	2910	2960	3270	3230	4250	1820	3050	5260	3160	3040
10	2260	2420	2960	2970	3300	3230	4230	1830	3000	5270	3120	3130
11	2260	2430	2990	2950	3270	3220	4250	1820	3110	5260	3160	3160
12	2240	2470	2990	2950	3270	3230	4260	1850	3040	5280	3150	3070
13	2180	2450	2990	2960	3300	3220	4260	1830	3000	5260	3090	2980
14	2180	2410	2970	2950	3270	3220	4280	1840	2990	5260	3150	2970
15	2180	2470	2990	2960	3270	3220	4280	1840	2980	5280	3130	2940
16	2170	2470	2970	2960	3270	3200	4250	1840	2970	5280	3130	2960
17	2170	2450	2970	2970	3270	3200	4230	1830	2970	5260	3120	3020
18	2170	2460	2970	2970	3270	3200	4190	1820	2980	4930	3120	3770
19	2170	2450	2970	2960	3260	3200	4210	1820	2970	4420	3150	3980
20	2170	2430	2990	2970	3270	3200	4260	1820	2800	4420	3130	3990
21	2170	2450	2970	2960	3260	3200	4370	1840	2980	4400	3120	3990
22	2160	2460	2990	2960	3260	3190	3310	1840	2980	4430	3120	3990
23	2160	2450	2970	2970	3260	3190	2400	1830	2950	4360	3120	3990
24	2160	2460	2970	2970	3240	3190	2400	1850	2910	4340	3100	3990
25	2160	2450	2960	2960	3260	3190	2390	1830	3210	3860	3100	3980
26	924	2450	2990	3310	3240	3190	2390	1820	4100	3860	3090	3990
27	699	2450	2990	3330	3230	3190	2390	1840	4800	3840	3080	3990
28	748	2450	2960	3300	3240	3180	2400	1830	5260	3830	3090	3980
29	1130	2450	2960	3270	3240	3180	2390	1820	5260	3110	3070	3980
30	1280	2450	2970	3270	---	3180	2390	1790	5260	3120	3080	3990
31	1180	---	2970	3300	---	3240	---	1800	---	3110	3070	---
TOTAL	61351	61430	90730	93850	94720	99570	103980	61100	95820	144140	97000	103250
MEAN	1979	2048	2927	3027	3266	3212	3466	1971	3194	4650	3129	3442
MAX	2280	2470	2990	3330	3300	3240	4370	2400	5260	5280	3180	3990
MIN	699	1070	2430	2950	3230	3180	2390	1790	1780	3110	3070	2940
AC-FT	121700	121800	180000	186200	187900	197500	206200	121200	190100	285900	192400	204800

CAL YR 1979 TOTAL 1106741 MEAN 3032 MAX 4650 MIN 699 AC-FT 2195000
WTR YR 1980 TOTAL 1106941 MEAN 3024 MAX 5280 MIN 699 AC-FT 2196000

06287000 BIGHORN RIVER NEAR ST. XAVIER, MT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1966 to current year.

REMARKS.--Flow regulated since Nov. 3, 1965, by Bighorn Lake. Once-daily water temperatures are available in the District office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,180 micromhos on several days during 1966-67; minimum daily, 492 micromhos Aug. 28, 1971.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily observed, 1,080 micromhos on several days during April to May; minimum daily, 795 micromhos Oct. 1.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO
OCT 18...	0930	2160	879	--	14.0	270	120	70	24	76	2.0
DEC 07...	1000	2900	954	--	8.5	320	150	80	28	90	2.2
JAN 17...	0930	2960	987	--	3.0	290	120	72	26	81	2.1
FEB 18...	1300	3260	1050	8.2	5.0	330	150	84	30	91	2.2
MAR 24...	1140	3190	1040	8.2	3.0	340	180	86	31	92	2.2
APR 21...	1310	4270	1020	8.0	5.0	--	--	--	--	--	--
MAY 15...	1230	1510	1180	8.1	5.0	340	150	85	30	88	2.1
JUN 20...	1630	2600	1090	8.2	6.0	370	210	92	33	95	2.2
JUL 23...	1000	3910	1010	8.2	12.0	340	160	86	31	92	2.2
AUG 19...	1130	2770	924	8.1	17.5	290	130	73	27	87	2.2
SEP 16...	1200	2720	790	8.1	17.5	260	97	65	23	76	2.1

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
OCT 18...	4.0	150	270	10	.4	9.7	557	.76	3250	.68	.000
DEC 07...	4.0	170	320	9.5	.5	10	647	.88	5070	.67	.010
JAN 17...	4.2	170	270	11	.5	9.9	579	.79	4630	.58	.010
FEB 18...	4.3	180	330	11	.5	9.7	671	.91	5910	.57	.020
MAR 24...	4.4	160	340	15	.3	9.8	677	.92	5830	.49	.020
APR 21...	4.3	190	320	15	.3	--	--	--	--	.57	.050
MAY 15...	4.5	190	350	15	.5	8.4	698	.95	2850	.47	.010
JUN 20...	4.2	160	400	3.3	.5	9.2	735	1.00	5160	.47	.020
JUL 23...	4.3	180	310	12	.5	8.4	655	.89	6910	.65	.010
AUG 19...	4.1	160	310	12	.5	8.5	621	.84	4640	.59	.020
SEP 16...	4.3	160	260	12	.5	11	556	.76	4080	1.9	.040

06287000 BIGHORN RIVER NEAR ST. XAVIER, MT--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	795	974	962	956	967	1010	1020	1060	1020	1000	998	842
2	797	971	961	967	961	1040	1040	1080	1040	1020	998	829
3	800	969	959	960	956	993	1040	1080	1040	1020	990	838
4	814	962	957	961	963	1000	1030	1080	1040	1020	991	829
5	825	969	956	966	972	1010	1020	1080	1040	1020	991	825
6	831	970	964	971	986	1020	1020	1070	1040	1020	985	830
7	839	938	970	979	991	1020	1000	1080	1040	1020	980	830
8	840	973	966	984	994	1020	1020	1080	1040	1010	970	830
9	843	982	960	988	970	1020	1020	1070	1040	1010	970	833
10	849	972	963	990	963	1020	1020	1080	1030	1000	960	831
11	847	960	967	992	981	1020	1080	1080	1030	1010	965	832
12	848	971	960	952	986	1000	1040	1070	1030	1000	960	840
13	848	968	953	951	1000	981	1040	1060	1040	1010	950	831
14	854	961	954	960	1020	1000	1030	1080	1040	1020	949	838
15	860	956	957	963	1020	978	1040	1080	1030	1000	940	835
16	863	950	960	962	1010	985	1020	1080	1040	996	939	831
17	866	952	953	960	1010	1000	1030	1080	1030	992	929	830
18	869	953	947	966	973	991	1020	1080	1030	998	930	830
19	870	960	942	971	973	979	1030	1060	1030	991	920	830
20	873	981	951	979	985	992	1030	1080	1030	1000	910	833
21	890	972	959	960	997	1000	1040	1080	1030	1000	911	830
22	906	980	958	956	1010	1010	1040	1080	1030	1000	900	830
23	914	975	960	952	1020	1020	1060	1070	1040	1000	892	830
24	926	969	956	951	1020	1030	1060	1060	1030	1000	888	830
25	940	974	952	949	1020	1030	1060	1050	1030	990	890	830
26	944	972	953	960	991	1020	1070	1060	1030	990	879	820
27	946	975	955	971	962	1020	1060	1060	1040	999	869	821
28	954	979	960	979	980	1020	1060	1060	1040	1000	870	822
29	969	986	952	990	1010	1030	1060	1060	1020	1010	860	824
30	971	980	951	979	---	1040	1060	1060	1030	1000	860	820
31	973	---	960	989	---	1040	---	1060	---	1000	849	---
MEAN	876	968	957	968	989	1010	1040	1070	1030	1000	932	830

WTR YR 1980 MEAN 973 MAX 1080 MIN 795

06289000 LITTLE BIGHORN RIVER AT STATE LINE, NEAR WYOLA, MT

LOCATION.--Lat 45°00'25", long 107°37'05", in SW¼NW¼ sec.36, T.9 S., R.33 E., Bighorn County, Hydrologic Unit 10080016, on right bank 20 ft (6 m) downstream from county bridge, 0.5 mi (0.8 km) north of Wyoming-Montana State line, 1.0 mi (1.6 km) downstream from West Fork, 13 mi (21 km) southwest of Wyola, and at mile 115.2 (185.4 km).

DRAINAGE AREA.--193 mi^2 (500 km^2).

PERIOD OF RECORD.--March 1939 to current year. Prior to October 1940, published as Little Horn River at State line, near Wyola.

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,350 ft (1,326 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of 163 acres (660,000 m^3) above station.

AVERAGE DISCHARGE.--41 years, 156 ft^3/s (4.418 m^3/s), 113,000 acre-ft/yr (139 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,730 ft^3/s (77.3 m^3/s) June 3, 1944, gage height, 4.87 ft (1.484 m), from rating curve extended above 1,400 ft^3/s (39.6 m^3/s); maximum gage height recorded, 5.93 ft (1.807 m) June 9, 1944 (log jam); minimum discharge, 21 ft^3/s (0.59 m^3/s) Dec. 27, 1954, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 510 ft^3/s (14.4 m^3/s) and maximum (*):

		Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
May 22	2230	*583	16.5	2.74	0.835

Minimum discharge, 34 ft^3/s (0.96 m^3/s) Jan. 26, 27 (result of freezeup).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	77	63	74	63	57	59	213	295	180	112	88
2	89	72	81	73	72	59	59	196	299	174	112	86
3	88	76	79	72	70	59	58	182	302	169	112	99
4	81	78	78	72	66	50	59	188	313	167	112	89
5	76	77	78	72	64	50	61	196	325	162	109	86
6	76	73	79	53	63	58	62	216	332	157	107	83
7	76	72	78	48	62	60	62	238	313	154	107	85
8	77	76	77	43	56	60	59	244	295	152	105	86
9	73	76	76	45	60	60	61	321	295	154	104	86
10	78	74	78	56	61	59	62	317	302	145	104	85
11	76	76	53	64	57	59	63	250	317	142	102	85
12	76	71	57	74	59	60	61	222	310	140	102	89
13	76	71	67	86	60	58	62	202	299	140	104	88
14	76	69	78	71	48	59	65	193	291	138	104	86
15	76	71	70	67	43	59	69	188	313	138	105	86
16	88	71	50	66	50	58	69	193	284	131	116	92
17	79	74	74	66	61	56	69	210	270	131	95	91
18	79	74	78	66	65	58	76	222	264	134	88	86
19	79	74	74	50	63	58	82	231	254	127	92	86
20	79	72	74	50	62	57	96	284	247	127	98	83
21	77	61	73	64	61	57	110	389	241	125	92	89
22	76	66	73	64	60	57	118	456	231	123	89	86
23	78	73	73	66	59	57	121	475	225	121	88	85
24	78	73	73	66	58	57	127	433	216	119	88	85
25	78	73	73	61	58	58	134	411	207	118	88	85
26	77	69	72	37	59	57	131	352	202	118	89	83
27	73	69	68	35	60	57	129	332	196	116	88	82
28	78	63	67	36	60	58	131	321	190	114	89	81
29	73	54	69	40	59	57	142	313	185	114	86	81
30	72	59	69	45	---	59	167	310	182	112	86	79
31	72	---	73	54	---	60	---	302	---	112	89	---
TOTAL	2418	2134	2225	1836	1739	1788	2624	8600	7995	4254	3062	2581
MEAN	78.0	71.1	71.8	59.2	60.0	57.7	87.5	277	267	137	98.8	86.0
MAX	89	78	81	86	72	60	167	475	332	180	116	99
MIN	72	54	50	35	43	50	58	182	182	112	86	79
AC-FT	4800	4230	4410	3640	3450	3550	5200	17060	15860	8440	6070	5120

CAL YR 1979 TOTAL 45015 MEAN 123 MAX 651 MIN 50 AC-FT 89290
WTR YR 1980 TOTAL 41256 MEAN 113 MAX 475 MIN 35 AC-FT 81830

06298000 TONGUE RIVER NEAR DAYTON, WY

LOCATION.--Lat 44°50'58", long 107°18'14", in NE¼NE¼NE¼ sec.11, T.56 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, on left bank 0.5 mi (0.8 km) upstream from Crystal Draw, 0.6 mi (1.0 km) downstream from intake of Highline ditch, and 2.5 mi (4.0 km) southwest of Dayton.

DRAINAGE AREA.--204 mi² (528 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1918 to September 1929, October 1940 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1921.

GAGE.--Water-stage recorder. Altitude of gage is 4,060 ft (1,237 m), from topographic map.

REMARKS.--Records good. Small diversion above station for Dayton municipal supply. Figures of daily discharge do not include water diverted 0.6 mi (1.0 km) above station by Highline ditch for irrigation below station.

AVERAGE DISCHARGE.--51 years (water years 1919-29, 1941-80), 188 ft³/s (5.324 m³/s), 136,200 acre-ft/yr (168 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,400 ft³/s (96.3 m³/s) June 3, 1944, gage height, 6.45 ft (1.966 m); minimum daily, 18 ft³/s (0.51 m³/s) Nov. 29, 1919.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 800 ft³/s (22.7 m³/s) May 25, gage height, 3.69 ft (1.125 m), no peak above base of 980 ft³/s (27.8 m³/s); minimum daily discharge, 31 ft³/s (0.88 m³/s) Jan. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	68	55	50	57	39	45	358	464	225	86	74
2	56	54	57	50	56	46	46	357	452	208	91	68
3	56	64	57	50	53	48	45	284	432	195	86	78
4	57	74	59	50	47	38	44	288	458	188	90	75
5	56	69	56	50	45	44	47	291	510	177	85	64
6	55	60	57	40	45	51	49	315	560	167	80	61
7	55	59	57	44	47	48	44	345	546	160	78	59
8	55	62	56	44	42	47	40	355	487	157	78	60
9	53	62	56	49	45	47	46	358	477	176	75	63
10	59	61	56	64	47	47	49	442	488	152	74	61
11	56	64	38	59	46	47	47	326	514	138	75	61
12	64	56	38	67	46	46	39	279	516	133	73	70
13	69	57	48	61	46	41	44	251	485	130	77	70
14	68	57	60	56	43	47	51	273	449	128	85	67
15	67	59	51	51	44	47	58	256	541	134	85	62
16	80	59	48	50	46	44	52	275	452	125	156	78
17	75	62	66	47	50	40	55	329	398	120	133	91
18	72	62	59	48	49	46	65	319	391	123	92	87
19	72	61	56	43	48	49	77	336	373	116	82	101
20	73	59	55	45	47	46	93	346	355	118	87	88
21	69	50	55	53	47	46	117	463	368	117	82	78
22	64	53	54	49	46	46	143	587	340	108	75	83
23	76	55	53	50	45	45	168	640	307	106	72	77
24	79	59	53	50	41	48	190	596	288	107	70	77
25	75	60	53	45	44	47	197	660	267	103	67	78
26	75	56	53	31	48	45	201	486	249	109	67	76
27	67	54	45	39	51	43	199	492	235	103	68	72
28	70	49	46	48	48	48	210	490	226	96	69	70
29	64	48	48	49	46	44	233	480	215	91	66	71
30	55	53	48	50	---	48	285	537	208	89	63	69
31	51	---	49	53	---	45	---	496	---	89	67	---
TOTAL	1999	1766	1642	1535	1365	1413	2979	12310	12051	4188	2534	2189
MEAN	64.5	58.9	53.0	49.5	47.1	45.6	99.3	397	402	135	81.7	73.0
MAX	80	74	66	67	57	51	285	660	560	225	156	101
MIN	51	48	38	31	41	38	39	251	208	89	63	59
AC-FT	3970	3500	3260	3040	2710	2800	5910	24420	23900	8310	5030	4340
†	381	0	0	0	0	0	0	929	1170	1470	1450	891

ADJUSTED FOR DIVERSION BY HIGHLINE DITCH

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	70.7	58.9	53.0	49.5	47.1	45.6	99.3	412	421	159	105	87.9
AC-FT	4,350	3,500	3,260	3,040	2,710	2,800	5,910	25,350	25,080	9,780	6,470	5,230

	UNADJUSTED					ADJUSTED	
CAL YR 1979	TOTAL 49,892	MEAN 137	MAX 940	MIN 38	AC-FT 98,960	MEAN 145	AC-FT 104,900
WTR YR 1980	TOTAL 45,971	MEAN 126	MAX 660	MIN 31	AC-FT 91,180	MEAN 134	AC-FT 97,470

† Diversion, in acre-ft, above station by Highline ditch.

06298000 TONGUE RIVER NEAR DAYTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 18...	0740	72	255	8.1	7.0	130	0	35	11	2.0	.1	1.0
NOV 14...	1600	57	260	8.1	2.5	140	1	37	12	2.7	.1	1.0
DEC 13...	0730	43	270	8.1	1.0	140	1	35	13	2.2	.1	.8
JAN 16...	1630	50	250	8.1	2.0	150	10	35	15	2.7	.1	.9
FEB 21...	1500	46	295	8.2	2.5	140	4	33	14	3.5	.1	1.3
APR 16...	1510	46	285	8.3	8.5	130	0	32	11	1.8	.1	.6
MAY 14...	1220	260	160	8.3	7.0	87	7	19	9.4	1.3	.1	1.7
JUN 19...	1200	385	190	8.3	11.5	81	1	22	6.4	1.3	.1	.7
JUL 23...	1100	106	240	8.5	15.0	110	3	32	7.4	1.3	.1	.9
AUG 20...	1030	89	230	8.5	12.0	120	5	29	12	1.7	.1	1.0
SEP 25...	1400	78	240	8.4	9.5	120	5	31	9.1	1.0	.0	.9

DATE	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT 18...	170	0	140	4.1	1.7	.2	5.5	--	143	.19	27.8
NOV 14...	170	0	140	16	.0	.1	5.3	--	155	.21	23.9
DEC 13...	170	0	140	13	.4	.1	8.4	--	154	.21	17.9
JAN 16...	170	0	140	4.1	1.0	.2	6.5	--	150	.20	20.3
FEB 21...	160	3	140	4.1	.8	.1	6.8	--	154	.21	19.1
APR 16...	160	0	130	3.3	1.2	.3	7.8	--	140	.19	17.4
MAY 14...	98	0	80	6.6	.0	.5	7.4	--	94	.13	66.0
JUN 19...	96	0	80	.9	.1	.3	6.4	97	87	.12	90.4
JUL 23...	130	0	110	1.6	.4	.2	5.8	--	120	.16	34.3
AUG 20...	140	0	120	5.8	.5	.1	6.0	--	126	.17	30.3
SEP 25...	140	0	120	6.0	.4	.6	6.3	--	120	.16	25.3

06298000 TONGUE RIVER NEAR DAYTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)
OCT 18...	--	.00	--	--	--	--	--	--	--	--	--
NOV 14...	--	.20	--	--	--	--	--	--	--	--	--
DEC 13...	--	.13	--	--	--	--	--	--	--	--	--
JAN 16...	--	.27	--	--	--	--	--	--	--	--	--
FEB 21...	--	1.9	--	--	--	--	--	--	--	--	--
APR 16...	--	.23	--	--	--	--	--	--	--	--	--
MAY 14...	--	.03	--	--	--	--	--	--	--	--	--
JUN 19...	.12	.03	.080	.130	.10	.17	1.2	.29	1.3	.88	.42
JUL 23...	--	.00	--	--	--	--	--	--	--	--	--
AUG 20...	--	.00	--	--	--	--	--	--	--	--	--
SEP 25...	--	.00	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 18...	--	--	--	.020	--	--	--	--	--	--	--
NOV 14...	--	--	--	.000	--	--	--	--	--	--	--
DEC 13...	--	--	--	.040	--	--	--	--	--	--	--
JAN 16...	--	--	--	.000	--	--	--	--	--	--	--
FEB 21...	--	--	--	.010	--	--	.00	3	--	--	--
APR 16...	--	--	--	.010	--	--	--	1	--	--	--
MAY 14...	--	--	--	.050	--	--	.00	3	--	--	--
JUN 19...	1.4	.45	6.3	.070	.21	.010	--	6	10	10	70
JUL 23...	--	--	--	.030	--	--	--	14	--	--	--
AUG 20...	--	--	--	.030	--	--	--	2	--	--	--
SEP 25...	--	--	--	.010	--	--	--	1	--	--	--

YELLOWSTONE RIVER BASIN

06298000 TONGUE RIVER NEAR DAYTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)
JUN											
19...	1200	60	30	30	1	1	0	0	0	20	<1

DATE	BORON, TOTAL RECOVERABLE (UG/L AS B)	BORON, SUSPENDED RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN											
19...	50	10	40	1	<1	0	0	0	0	<3	6

DATE	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
JUN										
19...	<10	320	300	19	4	0	12	0	<4	130

DATE	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)
JUN										
19...	130	2	.0	.0	.0	<10	7	1	6	0

DATE	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
JUN										
19...	0	0	0	0	0	42	<6.0	60	50	11

06299500 WOLF CREEK AT WOLF, WY

LOCATION.--Lat 44°46'21", long 107°14'01", in NE¼SW¼NW¼ sec.4, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, on left bank at Wolf and 0.5 mi (0.8 km) downstream from Red Canyon Creek.

DRAINAGE AREA.--37.8 mi^2 (97.9 km^2).

PERIOD OF RECORD.--January 1945 to current year (no winter records since 1971). Monthly discharge for January to March 1945, published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 4,525 ft (1,379 m), from topographic map. Prior to May 26, 1945, nonrecording gage at same site and datum.

REMARKS.--Records good. No diversion above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--26 years (water years 1946-71), 29.3 ft^3/s (0.830 m^3/s), 21,230 acre-ft/yr (26.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,130 ft^3/s (32.0 m^3/s) June 15, 1963, gage height, 4.60 ft (1.402 m), from rating curve extended above 500 ft^3/s (14.2 m^3/s); no flow for part of each day Jan. 13, 15, 29, 30, Feb. 26, 1947, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, about 5.0 ft (1.52 m) May 18, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 171 ft^3/s (4.84 m^3/s) May 25, gage height, 2.32 ft (0.707 m), no peak above base of 180 ft^3/s (5.10 m^3/s); minimum daily during period of operation, 5.5 ft^3/s (0.16 m^3/s) Apr. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							6.9	48	96	36	12	9.4
2							6.2	51	91	34	13	8.3
3							6.2	48	88	32	12	11
4							6.0	51	91	30	13	9.8
5							6.0	54	94	28	11	7.4
6							6.5	57	117	26	11	7.1
7							6.5	60	106	25	10	6.8
8							5.5	59	89	25	10	7.1
9							5.7	64	91	30	9.8	7.7
10							6.0	74	91	24	9.8	7.1
11							6.2	61	94	22	9.8	7.1
12							6.0	60	91	21	9.0	8.6
13							6.0	59	84	21	9.8	8.6
14							7.1	59	78	20	13	8.3
15							9.4	59	94	20	12	7.4
16							8.6	64	84	19	22	11
17							8.6	64	74	19	19	13
18							14	65	70	19	13	12
19							17	69	65	18	11	15
20							23	76	61	18	12	12
21							29	84	61	18	11	10
22							31	94	55	16	9.8	11
23							32	104	51	16	9.4	9.8
24							34	106	47	16	8.6	9.4
25							35	141	44	15	8.0	9.8
26							34	104	41	15	8.6	9.8
27							34	99	39	14	8.6	9.0
28							34	101	37	13	9.0	9.4
29							34	103	35	13	8.0	8.6
30							41	111	34	12	8.0	8.6
31							---	99	---	12	8.6	---
TOTAL							505.4	2348	2193	647	339.8	280.1
MEAN							16.8	75.7	73.1	20.9	11.0	9.34
MAX							41	141	117	36	22	15
MIN							5.5	48	34	12	8.0	6.8
AC-FT							1000	4660	4350	1280	674	556

06299980 TONGUE RIVER AT MONARCH, WY

LOCATION.--Lat 44°54'08", long 107°01'49", in NW¼SW¼NW¼ sec.20, T.57 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, at bridge on county road at Monarch, 0.6 mi (1.0 km) upstream from South Dry Creek, and 1.0 mi (1.6 km) usptream from bridge on Interstate Highway 90.

PERIOD OF RECORD.--Water years 1974 to September 1980 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
OCT										
18...	0840	54	480	8.2	8.0	--	10.4	K170	240	39
NOV										
14...	1650	47	460	8.2	2.0	--	12.8	K16	220	32
DEC										
13...	0830	43	535	8.1	.5	--	12.0	23	270	48
JAN										
17...	0710	E65	450	7.9	.5	--	12.2	42	220	45
FEB										
21...	1320	E100	520	7.9	.5	--	11.8	K560	220	61
APR										
16...	1340	124	630	8.3	11.5	--	10.4	84	280	86
MAY										
14...	1500	284	270	8.9	11.0	--	11.2	96	120	18
JUN										
11...	1245	408	240	8.4	16.0	--	8.8	--	110	14
JUL										
10...	1330	117	340	8.9	23.0	--	9.1	110	150	24
AUG										
11...	1500	68	530	8.3	22.0	--	8.9	K32	230	27
21...	1100	--	--	--	--	--	--	--	--	--
21...	1105	--	--	--	--	--	--	--	--	--
21...	1130	--	--	--	--	--	--	--	--	--
21...	1200	--	490	--	19.5	5	9.5	--	--	--
SEP										
09...	1630	90	390	8.4	20.0	--	9.7	67	240	30

E-Estimate.
K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT										
18...	53	26	18	.5	2.3	200	70	2.6	.2	8.4
NOV										
14...	51	23	15	.4	1.6	190	68	1.7	.2	7.4
DEC										
13...	61	28	19	.5	1.8	220	88	2.0	.2	8.4
JAN										
17...	52	23	16	.5	.3	180	78	2.3	.2	8.3
FEB										
21...	49	24	16	.5	3.4	160	79	2.3	.2	8.2
APR										
16...	61	30	27	.7	2.7	190	130	3.2	.2	5.5
MAY										
14...	29	11	6.4	.3	1.2	100	28	.9	.1	6.4
JUN										
11...	27	10	5.2	.2	1.1	95	21	.6	.0	7.3
JUL										
10...	37	15	7.4	.3	1.4	130	29	1.4	.2	6.3
AUG										
11...	48	26	19	.5	3.0	200	71	2.9	.2	5.7
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
SEP										
09...	50	28	19	.5	2.3	210	72	1.6	.2	7.6

09299980 TONGUE RIVER AT MONARCH, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
OCT 18...	301	.41	43.9	.02	.080	.10	.72	.80	.82
NOV 14...	283	.38	35.9	.16	.010	.01	.24	.25	.41
DEC 13...	341	.46	39.6	.21	.050	.06	.38	.43	.64
JAN 17...	288	.39	50.5	.28	.020	.02	.85	.87	1.2
FEB 21...	278	.38	--	.31	.230	.28	.97	1.2	1.5
APR 16...	374	.51	125	.03	.130	.16	.97	1.1	1.1
MAY 14...	143	.19	110	.00	.100	.12	.70	.80	.80
JUN 11...	129	.18	142	.01	.020	.02	.61	.63	.64
JUL 10...	176	.24	55.6	.18	.090	.11	.50	.59	.77
AUG 11...	296	.40	54.3	.05	.310	.38	1.5	1.8	1.9
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
SEP 09...	307	.42	74.6	.00	.000	.00	.41	.41	.41

DATE	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	IN-VERTE-BRATES, BENTHIC WET WT. (G/SQ METER)	IN-VERTE-BRATES, BENTHIC TOTAL (ORG/SQ METER)
OCT 18...	3.6	.010	.03	3.4	.4	--	--	--	--
NOV 14...	1.8	.010	.03	--	--	--	--	--	--
DEC 13...	2.8	.010	.03	--	--	--	--	--	--
JAN 17...	5.1	.030	.09	--	--	--	--	--	--
FEB 21...	6.7	.060	.18	--	--	.00	4	--	--
APR 16...	5.0	.050	.15	--	--	--	2	--	--
MAY 14...	3.5	.030	.09	8.3	.2	.00	5	--	--
JUN 11...	2.8	.050	.15	--	--	--	9	--	--
JUL 10...	3.4	.000	.00	--	--	--	3	--	--
AUG 11...	8.2	.090	.28	--	--	--	0	--	--
21...	--	--	--	--	--	--	--	4.9	570
21...	--	--	--	--	--	--	--	5.4	3100
21...	--	--	--	--	--	--	--	31	870
21...	--	--	--	--	--	--	--	--	--
SEP 09...	1.8	.030	.09	--	--	--	20	--	--

09299980 TONGUE RIVER AT MONARCH, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT 18...	0840	130	130	0	0	0	0	0	0	<1	50	2
NOV 14...	1650	--	--	--	--	--	--	--	--	--	50	--
DEC 13...	0830	--	--	--	--	--	--	--	--	--	50	--
JAN 17...	0710	--	--	--	--	--	--	--	--	--	40	--
FEB 21...	1320	--	--	--	--	--	--	--	--	--	60	--
APR 16...	1340	--	--	--	--	--	--	--	--	--	60	--
MAY 14...	1500	260	240	20	1	1	0	0	--	<1	30	2
JUN 11...	1245	--	--	--	--	--	--	--	--	--	20	--
JUL 10...	1330	--	--	--	--	--	--	--	--	--	30	--
AUG 11...	1500	--	--	--	--	--	--	--	--	--	150	--
SEP 09...	1630	--	--	--	--	--	--	--	--	--	110	--

DATE	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
OCT 18...	0	2	10	10	0	0	0	0	240	--	10	0
NOV 14...	--	--	--	--	--	--	--	--	--	--	340	--
DEC 13...	--	--	--	--	--	--	--	--	--	--	150	--
JAN 17...	--	--	--	--	--	--	--	--	--	--	40	--
FEB 21...	--	--	--	--	--	--	--	--	--	--	60	--
APR 16...	--	--	--	--	--	--	--	--	--	--	30	--
MAY 14...	--	<1	0	0	0	7	3	4	540	510	30	5
JUN 11...	--	--	--	--	--	--	--	--	--	--	40	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	20	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	30	--
SEP 09...	--	--	--	--	--	--	--	--	--	--	30	--

09299980 TONGUE RIVER AT MONARCH, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)
OCT 18...	0	3	10	0	20	20	10	10	.1	.1	.0	0
NOV 14...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 17...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 21...	--	--	--	--	--	--	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 14...	5	0	10	3	7	20	10	8	.1	.1	.0	0
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 09...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 18...	0	<10	0	0	1	0	0	0	<1.0	0	0	<3
NOV 14...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 17...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 21...	--	--	--	--	--	--	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 14...	--	<10	6	3	3	0	0	0	1.0	10	--	<3
JUN 11...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 09...	--	--	--	--	--	--	--	--	--	--	--	--

06299980 TONGUE RIVER AT MONARCH, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1979 TO AUGUST 1980

DATE	AUG 21,80	AUG 21,80	AUG 21,80
TIME	1100	1105	1130
TOTAL COUNT	105	284	873
DIVERSITY: PHYLUM	0.0	0.0	0.0
.CLASS	0.0	0.0	0.2
..ORDER	1.5	1.4	2.1
...FAMILY	2.4	2.5	2.8
....GENUS	3.1	0.0	3.6
....GENUS-INSECTA	3.1	0.0	3.5
ORGANISM	COUNT	COUNT	COUNT
ARTHROPODA (ARTHROPODS)			
.ARACHNIDA			
..HYDRACARINA			
...UNKNOWN FAMILY			
....UNKNOWN GENUS	--	--	32
.INSECTA			
..COLEOPTERA			
...ELMIDAE			
....DUBIRAPHIA	2	--	--
....MICROCYLLOEPUS	--	--	12
....OPTIOSERVUS	1	21	--
....STENELMIS	3	--	--
....ZAITZEVIA	--	--	20
..DIPTERA			
...ATHERICIDAE=RHAGIONIDAE			
....ATHERIX	7	12	11
...CHIRONOMIDAE			
...."CORDITES"	--	--	16
....BRILLIA	--	1	--
....CONCHAPELOPIA,ARCTO,RHEO	--	--	16
....CRICOTOPUS	--	--	16
....CRYPTOCHIRONOMUS	--	1	--
....EUKIEFFERIELLA	--	5	8
....MICROPSECTRA	--	2	--
....POLYPEDILUM	--	5	--
....RHEOCRICOTOPUS	--	--	40
....RHEOTANYTARSUS	--	--	4
...SIMULIIDAE			
....ECTEMNIA	--	--	28
....SIMULIUM	--	1	20
...TIPULIDAE			
....HEXATOMA	--	--	5
....TIPULA	--	2	--
..EPHEMEROPTERA			
...BAETIDAE			
....BAETIS	5	14	256
...EPHEMERELLIDAE			
....EPHEMERELLA	1	--	1
...EPHEMERIDAE			
....EPHEMERA	2	--	--
....HEXAGENIA	--	7	--
...HEPTAGENIIDAE			
....RHITHROGENA	--	--	12
...LEPTOPHLEBIIDAE			
....CHOROTERPES	16	--	--
....LEPTOPHLEBIA	--	17	--
...POLYMITARCYIDAE			
....EPHORON	--	--	9
...TRICORYTHIDAE			
....TRICORYTHODES	1	--	--
..ODONATA			
...GOMPHIDAE	--	1	--
....OPHIOGOMPHUS	--	--	2
..PLECOPTERA			
...CHLOROPERLIDAE			
....UNKNOWN GENUS	--	--	16
...PERLIDAE			
....CLAASSENIA	--	--	11
....DORONEURIA	2	--	--
...PERLODIDAE			
....ISOGENOIDES	--	--	15
..TRICHOPTERA			
...BRACHYCENTRIDAE			
....BRACHYCENTRUS	6	68	23
....OLIGOPLECTRUM	--	4	--
...GLOSSOSOMATIDAE			
....UNKNOWN GENUS	--	--	4
...HYDROPSYCHIDAE			
....CHEUMATOPSYCHE	13	102	172
....HYDROPSYCHE	5	14	88
....SYMPHITOPSYCHE	37	--	36
...HYDROPTILIDAE			
....LEUCOTRICHIA	1	--	--
....STACTOBIELLA	--	7	--
...LEPTOCERIDAE			
....NECTOPSYCHE	3	--	--

06300500 EAST FORK BIG GOOSE CREEK NEAR BIG HORN, WY

LOCATION.--Lat 44°32'18", long 107°13'33", in SE¼SE¼NW¼ sec.28, T.53 N., R.86 W., Johnson County, Hydrologic Unit 10090101, Bighorn National Forest, on right bank 0.7 mi (1.1 km) upstream from Park Reservoir and 16 mi (26 km) southwest of Big Horn.

DRAINAGE AREA.--20.1 mi^2 (52.1 km^2).

PERIOD OF RECORD.--October 1953 to current year (no winter records since 1973). Prior to October 1960, published as East Goose Creek near Big Horn.

GAGE.--Water-stage recorder. Altitude of gage is 8,320 ft (2,536 m), from topographic map. Prior to June 28, 1960, water-stage recorder at site 1.1 mi (1.8 km) downstream at different datum. June 28, 1960, to July 14, 1970, water-stage recorder at site 0.9 mi (1.4 km) downstream at different datums and July 15 to Oct. 7, 1970, nonrecording gage at present site and datum.

REMARKS.--Records good. No gage-height record Apr. 1-20. No diversion above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--20 years (water years 1954-73), 32.6 ft^3/s (0.923 m^3/s), 23,620 acre-ft/yr (29.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft^3/s (34.8 m^3/s) June 15, 1963, gage height, 4.59 ft (1.399 m), site and datum then in use, from rating curve extended above 250 ft^3/s (7.08 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 1.0 ft^3/s (0.03 m^3/s) Dec. 11-14, 1963, Mar. 24, 25, Nov. 14, 15, 1964, Mar. 18, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft^3/s (5.10 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 22	2330	*476	13.5	5.44	1.658
June 5	0200	218	6.17	4.44	1.353
June 11	2330	340	9.63	4.98	1.518

Minimum daily discharge during period of operation, 6.6 ft^3/s (0.19 m^3/s) Apr. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	44	78	83	11	9.5
2							---	42	88	63	11	9.2
3							---	37	100	55	11	11
4							---	33	151	51	11	12
5							---	35	192	43	10	9.9
6							---	46	149	39	9.0	9.0
7							---	60	114	36	8.3	8.5
8							---	75	105	34	8.5	8.3
9							---	88	156	37	8.5	8.5
10							---	92	197	34	8.3	8.3
11							---	56	240	30	8.1	8.1
12							---	41	235	28	7.6	9.7
13							---	35	191	25	7.4	10
14							---	28	156	24	7.4	9.5
15							---	26	147	27	8.3	9.0
16							---	31	101	24	22	17
17							---	38	92	21	23	22
18							---	48	128	24	17	27
19							---	56	123	22	14	86
20							---	71	116	21	14	46
21							6.6	179	140	19	13	34
22							7.2	317	119	17	11	30
23							7.4	336	102	17	11	26
24							9.5	258	89	17	9.9	26
25							14	195	79	16	9.2	25
26							28	121	79	16	9.5	24
27							25	95	73	15	9.2	23
28							23	104	52	14	9.9	22
29							29	104	47	12	9.2	21
30							41	93	59	12	8.7	20
31							---	80	---	11	9.2	---
TOTAL							---	2864	3698	887	335.2	589.5
MEAN							---	92.4	123	28.6	10.8	19.7
MAX							---	336	240	83	23	86
MIN							---	26	47	11	7.4	8.1
AC-FT							---	5680	7330	1760	665	1170

06301500 WEST FORK BIG GOOSE CREEK NEAR BIG HORN, WY

LOCATION.--Lat 44°36'47", long 107°17'49", in NW¼ Sec.30, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, Bighorn National Forest, on left bank 0.3 mi (0.5 km) downstream from Twin Lakes Branch and 16 mi (26 km) west of Big Horn.

DRAINAGE AREA.--24.4 mi² (63.2 km²).

PERIOD OF RECORD.--October 1953 to current year (no winter records since 1971). Prior to October 1960, published as West Goose Creek near Big Horn.

GAGE.--Water-stage recorder. Altitude of gage is 8,420 ft (2,566 m), from topographic map.

REMARKS.--Records good. Some regulation by Twin Lakes, capacity, 1,200 acre-ft (1.48 hm³) and Dome Lake, capacity, 1,800 acre-ft (2.22 hm³). No diversion above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--18 years (water years 1954-71), 34.4 ft³/s (0.974 m³/s), 24,920 acre-ft/yr (30.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,030 ft³/s (29.2 m³/s) June 15, 1963, gage height, 5.37 ft (1.637 m), from rating curve extended above 410 ft³/s (11.6 m³/s) on basis of velocity-area study; minimum daily, 0.80 ft³/s (0.023 m³/s) Dec. 14, 26, 1963, Jan. 15, 16, Feb. 26, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 485 ft³/s (13.7 m³/s) May 23, gage height, 4.10 ft (1.250 m); minimum daily during period of operation, 18 ft³/s (0.51 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	107	66	47	24
2								---	104	55	47	24
3								---	110	44	46	25
4								---	144	42	44	28
5								---	221	39	44	26
6								---	217	34	44	26
7								---	179	32	43	25
8								---	148	38	42	24
9								---	157	44	40	24
10								---	200	42	39	24
11								---	240	40	38	24
12								---	270	38	42	24
13								---	240	37	42	24
14								---	180	35	44	23
15								---	175	39	40	22
16								---	135	37	40	26
17								---	105	39	37	24
18								---	120	44	35	33
19								---	120	43	31	33
20								---	115	38	27	28
21								51	130	38	25	24
22								169	125	38	30	22
23								431	98	37	33	22
24								392	84	37	34	21
25								309	62	37	33	22
26								181	56	36	33	22
27								148	68	36	34	21
28								140	63	37	33	20
29								140	58	41	31	19
30								132	56	44	29	18
31								118	---	48	26	---
TOTAL								---	4087	1255	1153	722
MEAN								---	136	40.5	37.2	24.1
MAX								---	270	66	47	33
MIN								---	56	32	25	18
AC-FT								---	8110	2490	2290	1430

06302000 BIG GOOSE CREEK NEAR SHERIDAN, WY

LOCATION.--Lat 44°42'08", long 107°10'51", in NW¼NE¼ sec.35, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, on right bank 0.4 mi (0.6 km) upstream from Cave Creek and 14 mi (23 km) southwest of Sheridan.

DRAINAGE AREA.--120 mi^2 (311 km^2).

PERIOD OF RECORD.--September 1929 to current year (no winter records since 1971). Prior to October 1960, published as Goose Creek near Sheridan. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1006: Drainage area. WSP 1509: 1930(M), 1931.

GAGE.--Water-stage recorder. Altitude of gage is 4,505 ft (1,375 m), from topographic map.

REMARKS.--Records good. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation of about 20 acres (8.1 hm^2) and to Sheridan Filtration plant, and return flow from irrigated areas. PK ditch diverts water 0.6 mi (1.0 km) above station for irrigation of lands downstream from station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--42 years (water years 1930-71), 79.6 ft^3/s (2.254 m^3/s), 57,670 acre-ft/yr (71.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,160 ft^3/s (89.5 m^3/s) June 15, 1963, gage height, 5.83 ft (1.777 m), from rating curve extended above 1,600 ft^3/s (45.3 m^3/s); minimum daily, 1.6 ft^3/s (0.045 m^3/s) Nov. 29, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 796 ft^3/s (22.5 m^3/s) May 25, gage height, 3.63 ft (1.106 m); minimum daily during period of operation, 6.8 ft^3/s (0.19 m^3/s) Apr. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							11	123	227	94	23	16
2							11	120	216	83	22	14
3							11	107	229	61	21	16
4							12	108	283	58	22	22
5							12	105	427	49	20	19
6							13	111	450	32	19	16
7							12	129	348	17	19	16
8							10	127	271	19	16	14
9							12	107	302	31	15	13
10							12	174	404	24	16	13
11							12	115	495	22	15	14
12							6.8	97	560	19	17	16
13							11	87	490	19	19	16
14							14	90	376	15	23	15
15							17	86	365	16	22	12
16							16	95	277	14	35	21
17							18	98	211	15	24	21
18							26	107	248	22	19	25
19							34	118	251	20	18	46
20							47	110	234	15	19	33
21							62	190	262	15	15	22
22							77	368	254	14	14	23
23							78	697	206	13	17	20
24							93	718	172	17	17	19
25							100	718	124	15	15	16
26							105	472	65	17	16	15
27							102	289	98	15	17	13
28							93	274	76	13	19	13
29							87	283	67	16	18	17
30							105	277	65	17	17	8.8
31							---	243	---	24	18	---
TOTAL							1219.8	6743	8053	821	587	544.8
MEAN							40.7	218	268	26.5	18.9	18.2
MAX							105	718	560	94	35	46
MIN							6.8	86	65	13	14	8.8
AC-FT							2420	13370	15970	1630	1160	1080

06303500 LITTLE GOOSE CREEK IN CANYON, NEAR BIG HORN, WY

LOCATION.--Lat 44°35'46", long 107°02'22", in SE¼SW¼NE¼ sec.1, T.53 N., R.85 W., Sheridan County, Hydrologic Unit 10090101, on left bank 100 ft (30 m) upstream from headgate of Lower Peralta ditch and 6.5 mi (10.5 km) southwest of Big Horn.

DRAINAGE AREA.--51.6 mi^2 (133.6 km^2).

PERIOD OF RECORD.--April 1941 to current year (no winter records since 1971).

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,860 ft (1,481 m), from topographic map.

REMARKS.--Records good. Three small reservoirs above station, combined capacity, 860 acre-ft (1.06 hm^3), two of which store some imported water. Water imported into drainage basin above station from East Goose Creek basin is diverted below station for irrigation.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--30 years (water years 1942-71), 63.4 ft^3/s (1.795 m^3/s), 45,930 acre-ft/yr (56.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,350 ft^3/s (38.2 m^3/s) June 15, 1963, gage height, 6.78 ft (2.067 m), from rating curve extended above 900 ft^3/s (25.5 m^3/s); minimum recorded, 2.2 ft^3/s (0.062 m^3/s) Dec. 4, 1949, gage height, 0.71 ft (0.216 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 330 ft^3/s (9.35 m^3/s) May 23, gage height, 3.62 ft (1.103 m); minimum daily during period of operation, 7.2 ft^3/s (0.20 m^3/s) Apr. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							8.1	101	136	80	61	44
2							8.1	98	140	79	58	41
3							7.8	95	143	80	57	43
4							7.5	99	164	83	58	38
5							8.1	107	170	71	53	31
6							8.8	107	159	66	50	32
7							8.1	109	134	62	48	33
8							7.2	112	123	53	47	33
9							8.1	116	137	53	46	32
10							8.4	143	143	61	46	31
11							8.1	122	147	64	46	30
12							7.8	114	133	67	45	34
13							7.8	109	119	68	45	30
14							12	108	128	68	43	28
15							16	103	151	69	41	27
16							16	107	133	68	63	36
17							18	106	134	73	52	33
18							23	108	129	75	47	31
19							34	112	124	73	49	40
20							50	115	104	73	50	31
21							60	155	120	71	46	31
22							70	221	120	66	45	29
23							75	264	114	62	45	27
24							86	231	107	62	44	27
25							87	241	97	64	43	30
26							79	168	84	64	44	29
27							75	155	64	64	43	27
28							78	159	59	61	41	27
29							83	162	59	61	40	27
30							93	149	73	61	43	26
31							---	140	---	62	45	---
TOTAL							1058.9	4236	3648	2084	1484	958
MEAN							35.3	137	122	67.2	47.9	31.9
MAX							93	264	170	83	63	44
MIN							7.2	95	59	53	40	26
AC-FT							2100	8400	7240	4130	2940	1900

06304500 LITTLE GOOSE CREEK AT SHERIDAN, WY

LOCATION.--Lat 44°48'10", long 106°57'10", in NE¼NW¼SW¼ sec.26, T.56 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, at bridge on Sheridan Avenue in Sheridan and 0.6 mi (1.0 km) upstream from mouth.

PERIOD OF RECORD.--March 1979 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)
OCT 17...	1640	72	670	8.5	11.5	10	10.8	200	455
NOV 14...	1430	51	630	8.4	4.0	3	13.8	K24	394
DEC 13...	1040	93	670	8.1	.5	3	11.8	72	439
JAN 17...	1030	E30	630	7.9	.5	6	10.4	70	415
FEB 21...	1110	74	635	7.9	.5	9	12.4	280	412
APR 16...	1100	34	670	8.3	10.0	4	10.8	<1	364
MAY 14...	0930	56	625	8.6	10.5	10	12.2	48	408
JUN 11...	1030	210	440	8.4	17.0	35	9.2	--	405
JUL 10...	1445	16	950	8.8	29.0	2	14.0	84	663
AUG 11...	1345	12	1000	8.4	23.5	15	9.7	100	701
SEP 09...	0930	14	850	8.4	14.0	15	10.4	170	683

E-Estimate.
K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)
OCT 17...	.00	.040	.05	.60	.64	.64	2.8	.030	.09
NOV 14...	.20	.010	.01	.53	.54	.74	3.3	.010	.03
DEC 13...	.35	.060	.07	.46	.52	.87	3.9	.000	.00
JAN 17...	.78	.060	.07	.94	1.0	1.8	7.9	.030	.09
FEB 21...	.65	.830	1.0	2.0	2.8	3.5	15	.220	.67
APR 16...	.03	.060	.07	3.7	3.8	3.8	17	.030	.09
MAY 14...	.00	.010	.01	.58	.59	.59	2.6	.060	.18
JUN 11...	.09	.010	.01	1.7	1.7	1.8	7.9	.130	.40
JUL 10...	.02	.010	.01	.66	.67	.69	3.1	.000	.00
AUG 11...	.00	.010	.01	1.3	1.3	1.3	5.8	.070	.21
SEP 09...	.00	.000	.00	.85	.85	.85	3.8	.050	.15

06304500 LITTLE GOOSE CREEK AT SHERIDAN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY									
14...	0930	.10	0	.00	.0	.00	0	.00	.0
JUN									
11...	1030	.03	0	.00	.0	.00	0	.00	.0
JUL									
10...	1445	.09	0	.00	.0	.00	0	.00	.0
SEP									
09...	0930	.00	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
MAY				
14...	.00	.0	.01	.0
JUN				
11...	.00	.0	.01	.0
JUL				
10...	.00	.0	.01	.0
SEP				
09...	.00	.0	.02	.0

06305500 GOOSE CREEK BELOW SHERIDAN, WY

LOCATION.--Lat 44°49'25", long 106°57'40", in SE¼SW¼ sec.15, T.56 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, on right bank 700 ft (213 m) north of Sheridan city limits and 0.2 mi (0.3 km) downstream from Soldier Creek.

DRAINAGE AREA.--392 mi² (1,015 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only for October to December 1941, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 3,701.36 ft (1,128.175 m), National Geodetic Vertical Datum of 1929. Prior to Aug. 3, 1951, nonrecording gage at site 600 ft (183 m) upstream at datum 2.18 ft (0.664 m) lower.

REMARKS.--Records good. Some regulation by many small reservoirs, combined capacity, about 15,000 acre-ft (18.5 hm³). Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--39 years, 184 ft³/s (5.211 m³/s), 133,300 acre-ft/yr (164 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,450 ft³/s (154 m³/s) June 16, 1963, gage height, 7.82 ft (2.384 m); maximum gage height, 9.11 ft (2.777 m) Feb. 28, 1972 (backwater from ice); minimum daily discharge, 4.0 ft³/s (0.11 m³/s) Aug. 11, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,280 ft³/s (36.2 m³/s) May 25, gage height, 4.39 ft (1.338 m); minimum daily, 14 ft³/s (0.40 m³/s) July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	117	97	79	43	88	93	204	423	140	15	46
2	73	107	95	79	46	83	93	199	410	112	17	39
3	87	103	110	68	52	81	97	174	403	94	22	41
4	85	112	117	69	68	61	95	173	446	76	33	43
5	82	116	113	72	83	59	93	172	587	63	30	40
6	78	110	104	33	82	60	92	154	703	52	24	36
7	79	106	97	38	69	60	94	148	658	44	20	34
8	80	104	86	61	58	60	86	157	513	35	19	32
9	97	105	87	59	60	73	82	158	495	45	21	35
10	116	103	87	54	61	165	84	293	586	38	21	37
11	104	105	56	59	55	225	86	297	676	31	20	37
12	88	98	70	67	54	162	85	226	739	33	21	47
13	89	100	86	120	57	89	81	193	690	37	22	54
14	95	101	94	109	52	91	81	183	582	33	42	52
15	93	100	83	91	47	116	91	164	597	33	43	53
16	129	100	31	85	47	92	98	161	559	30	64	83
17	125	102	69	76	50	81	94	169	414	26	85	84
18	115	103	111	75	56	98	102	174	405	30	59	71
19	105	102	94	62	68	104	117	196	424	30	46	74
20	105	99	90	51	100	91	141	197	396	36	48	115
21	115	92	85	70	128	94	167	227	379	38	54	101
22	114	79	82	72	151	90	180	394	396	27	47	103
23	104	111	80	83	127	87	188	728	340	24	41	91
24	101	110	63	98	95	86	195	840	299	21	37	87
25	98	101	81	80	87	84	213	1100	259	18	27	89
26	99	92	81	47	127	79	207	785	183	18	30	87
27	96	92	62	42	340	78	200	498	179	18	34	81
28	102	64	56	44	380	76	177	425	161	19	41	78
29	155	69	65	45	145	76	169	432	135	17	34	74
30	133	87	62	44	---	77	179	496	120	16	32	75
31	120	---	65	43	---	95	---	444	---	14	42	---
TOTAL	3135	2990	2559	2075	2788	2861	3760	10161	13157	1248	1091	1919
MEAN	101	99.7	82.5	66.9	96.1	92.3	125	328	439	40.3	35.2	64.0
MAX	155	117	117	120	380	225	213	1100	739	140	85	115
MIN	73	64	31	33	43	59	81	148	120	14	15	32
AC-FT	6220	5930	5080	4120	5530	5670	7460	20150	26100	2480	2160	3810

CAL YR 1979 TOTAL 51613 MEAN 141 MAX 785 MIN 31 AC-FT 102400
WTR YR 1980 TOTAL 47744 MEAN 130 MAX 1100 MIN 14 AC-FT 94700

06305500 GOOSE CREEK BELOW SHERIDAN, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-65, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 17...	1730	118	670	8.4	11.0	10	10.0	5.4	58000	320
NOV 15...	0740	92	640	8.1	1.0	6	12.6	--	52000	310
DEC 13...	0945	70	750	8.1	.5	9	10.4	5.0	K96000	360
JAN 17...	0830	76	660	7.9	.5	10	9.8	--	46000	350
FEB 21...	1200	122	700	7.9	.5	10	11.8	>9.4	41000	270
APR 16...	1200	102	770	8.3	10.5	7	11.6	5.4	44000	300
MAY 14...	1630	181	455	8.6	13.5	15	9.8	5.3	39000	200
JUN 11...	1430	738	220	8.3	16.0	30	9.4	2.2	--	85
JUL 10...	1100	52	900	8.6	22.0	--	10.1	3.7	14000	420
AUG 11...	1045	23	1050	8.2	18.5	9	9.7	5.0	30000	480
SEP 09...	1430	37	1010	8.5	17.0	15	10.4	7.9	K126000	450

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 17...	90	68	36	27	.7	5.3	280	0	230	130
NOV 15...	72	63	37	27	.7	2.5	290	0	240	120
DEC 13...	89	76	42	30	.7	2.8	330	0	270	150
JAN 17...	100	66	45	26	.6	3.8	300	0	250	140
FEB 21...	57	51	34	27	.7	11	260	0	210	120
APR 16...	70	62	36	29	.7	2.5	280	0	230	130
MAY 14...	52	40	24	16	.5	3.0	180	0	150	87
JUN 11...	14	20	8.8	6.6	.3	.7	87	0	71	31
JUL 10...	170	150	11	34	.7	3.6	310	0	250	210
AUG 11...	220	84	65	38	.8	5.0	320	0	260	250
SEP 09...	160	88	56	34	.7	3.1	350	0	290	230

06305500 GOOSE CREEK BELOW SHERIDAN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
OCT 17...	6.0	.4	9.7	423	.58	135	22	.58	.60	.530
NOV 15...	2.5	.3	6.9	401	.55	99.6	1	.13	.10	.390
DEC 13...	5.6	.3	12	480	.65	90.7	8	.25	.19	.840
JAN 17...	6.2	.5	11	448	.61	91.9	19	.43	.43	.570
FEB 21...	7.1	.4	13	390	.53	128	15	.66	.50	1.700
APR 16...	5.9	.5	9.9	420	.57	116	4	.05	.22	.760
MAY 14...	2.7	.4	8.3	270	.37	132	46	.07	.05	.420
JUN 11...	.8	.2	9.6	121	.16	241	76	.04	.04	.130
JUL 10...	8.2	.3	6.3	570	.78	80.0	24	.16	.11	.930
AUG 11...	12	.4	6.0	621	.84	38.6	40	.20	.12	1.100
SEP 09...	7.6	.3	5.1	590	.80	58.9	22	.22	.20	1.700

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
OCT 17...	.64	1.2	1.7	2.3	10	.240	6.9	.7	--	--
NOV 15...	.47	.49	.88	1.0	4.5	.930	--	--	--	--
DEC 13...	1.0	.46	1.3	1.6	6.9	1.200	--	--	--	--
JAN 17...	.69	1.0	1.6	2.0	9.0	.230	--	--	--	--
FEB 21...	2.1	2.9	4.6	5.3	23	.480	--	--	.00	21
APR 16...	.92	.74	1.5	1.6	6.9	.700	--	--	--	5
MAY 14...	.51	.68	1.1	1.2	5.2	.340	--	--	.00	8
JUN 11...	.16	.87	1.0	1.0	4.6	.150	6.1	--	--	9
JUL 10...	1.1	.57	1.5	1.7	7.3	.510	--	--	--	2
AUG 11...	1.3	1.0	2.1	2.3	10	.750	--	--	--	3
SEP 09...	2.1	.90	2.6	2.8	12	.420	--	--	--	7

06305500 GOOSE CREEK BELOW SHERIDAN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT 17...	1730	10	10	0	1	1	0	0	0	<1	120	3
NOV 15...	0740	--	--	--	--	--	--	--	--	--	130	--
DEC 13...	0945	--	--	--	--	--	--	--	--	--	120	--
JAN 17...	0830	--	--	--	--	--	--	--	--	--	130	--
FEB 21...	1200	--	--	--	--	--	--	--	--	--	130	--
APR 16...	1200	--	--	--	--	--	--	--	--	--	130	--
MAY 14...	1630	--	--	--	--	--	--	--	--	--	100	--
JUN 11...	1430	1100	1100	40	2	1	1	0	--	<1	70	0
JUL 10...	1100	--	--	--	--	--	--	--	--	--	180	--
AUG 11...	1045	--	--	--	--	--	--	--	--	--	290	--
SEP 09...	1430	--	--	--	--	--	--	--	--	--	170	--

DATE	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
OCT 17...	2	<1	10	10	0	6	6	0	790	--	110	4
NOV 15...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 17...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 21...	--	--	--	--	--	--	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	<1	0	0	0	7	5	2	2300	2300	50	7
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 09...	--	--	--	--	--	--	--	--	--	--	--	--

06305500 GOOSE CREEK BELOW SHERIDAN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM SUS-PENDED RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)
OCT 17...	4	0	20	0	20	60	60	2	.0	.0	.0	2
NOV 15...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 17...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 21...	--	--	--	--	--	--	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	7	0	10	4	6	70	60	8	.1	.1	.0	0
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 09...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MOLYB-DENUM, SUS-PENDED RECOV. (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 17...	0	2	4	3	1	1	0	1	5.0	10	7	3
NOV 15...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 17...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 21...	--	--	--	--	--	--	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 14...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 11...	--	>10	6	6	0	0	0	0	7.0	110	--	>3
JUL 10...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 09...	--	--	--	--	--	--	--	--	--	--	--	--

06305500 GOOSE CREEK BELOW SHERIDAN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPERATURE, WATER (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
03...	1615	13.5	88	33	7.8	--
NOV						
26...	1440	1.0	103	22	6.1	--
DEC						
19...	1300	1.0	94	20	5.1	--
JAN						
23...	1200	1.0	74	6	1.2	--
FEB						
21...	1530	1.0	149	74	30	71
MAR						
24...	1530	6.0	88	38	9.0	--
APR						
14...	1745	14.0	85	8	1.8	--
MAY						
16...	1145	13.5	176	43	20	--
23...	2045	14.0	811	353	773	85
JUN						
13...	1545	17.0	717	92	178	88
JUL						
15...	1730	25.0	35	10	.94	--
AUG						
11...	1045	18.5	23	14	.87	--
SEP						
09...	1430	17.0	37	32	3.2	--

06306100 SQUIRREL CREEK NEAR DECKER, MT

LOCATION.--Lat 45°03'05", long 106°55'36", in NW¼NW¼ sec.14, T.9 S., R.39 E., Bighorn County, Hydrologic Unit 10090101, on left bank 0.4 mi (0.6 km) upstream from Powers Cormack ditch, 0.5 mi (0.8 km) northwest of C X Ranch, 4 mi (6 km) northwest of Decker, and 7 mi (11 km) upstream from mouth.

DRAINAGE AREA.--33.6 mi^2 (87.0 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,680 ft (1,122 m), from topographic map.

REMARKS.--Records fair. Two small diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 584 ft^3/s (16.5 m^3/s) May 18, 1978, gage height, 7.27 ft 2.216 m); no flow Jan. 8, 1977, and on many days in September 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36 ft^3/s (1.02 m^3/s) Apr. 16, gage height, 2.88 ft (0.878 m); maximum gage height, 4.33 ft (1.320 m) Feb. 28 (backwater from ice; no flow Sept. 1-15, 18-20, 23-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	1.6	1.0	.74	.51	4.5	6.3	4.8	3.6	.25	.06	.00
2	.60	1.5	1.1	.74	.60	4.8	4.5	3.6	3.6	.20	.06	.00
3	.64	1.5	1.3	.80	.60	4.7	3.4	2.7	4.7	.20	.06	.00
4	.74	1.6	1.8	.92	.69	2.6	2.7	3.4	2.4	.18	.06	.00
5	.74	1.9	2.2	.92	.86	2.2	3.0	4.0	1.9	.14	.06	.00
6	.80	2.2	2.4	.86	1.0	2.4	8.3	2.6	4.0	.14	.06	.00
7	.80	1.8	2.3	.64	1.6	2.4	14	2.1	4.4	.12	.06	.00
8	.74	1.5	1.5	.51	1.3	2.3	7.9	1.7	3.6	.09	.06	.00
9	.80	1.7	2.1	.45	1.3	2.4	7.0	1.7	2.6	.09	.06	.00
10	.92	1.7	2.1	.40	1.2	3.8	6.3	5.8	2.1	.08	.06	.00
11	.92	1.9	1.0	.43	1.1	5.0	7.5	9.4	1.6	.08	.07	.00
12	.92	2.1	1.3	.47	1.1	5.3	6.4	5.4	1.3	.08	.07	.00
13	.98	1.6	1.3	.51	1.2	3.8	5.9	3.8	1.2	.08	.07	.00
14	1.0	1.7	1.3	.74	1.1	3.4	7.7	3.1	.98	.08	.07	.00
15	1.0	1.8	1.3	.80	1.0	3.4	18	2.7	1.2	.08	.07	.00
16	1.2	1.8	.98	.92	1.0	3.0	22	2.2	1.3	.08	.07	.01
17	1.2	1.9	.98	1.0	.98	2.7	14	1.9	2.2	.08	.05	.01
18	1.3	1.9	1.0	1.1	.98	2.7	11	1.7	1.5	.07	.05	.00
19	1.0	1.9	1.2	1.2	1.0	3.4	9.5	1.6	1.0	.07	.05	.00
20	1.0	1.8	1.3	1.1	3.0	3.4	8.0	1.5	.92	.07	.05	.00
21	1.1	1.0	1.4	1.1	7.2	3.6	7.0	1.4	.92	.07	.04	.02
22	1.3	1.0	1.3	1.0	7.4	3.6	6.5	1.2	.80	.07	.04	.01
23	1.3	1.3	1.3	1.1	5.0	4.0	5.8	1.0	.64	.07	.04	.00
24	1.3	1.7	1.2	1.6	2.4	4.4	5.4	1.0	.64	.07	.04	.00
25	1.3	1.8	1.3	1.6	1.8	3.8	5.1	3.4	.40	.07	.03	.00
26	1.2	1.3	1.3	1.6	2.6	2.9	4.8	4.5	.47	.07	.03	.00
27	1.1	1.1	1.1	1.3	8.0	2.6	4.2	2.4	.40	.07	.03	.00
28	1.3	.90	1.0	.92	17	2.3	3.6	1.8	.33	.07	.02	.00
29	2.6	.95	.92	.69	20	2.7	3.4	2.3	.30	.07	.02	.00
30	2.3	1.0	.86	.60	---	4.7	3.0	6.1	.25	.07	.02	.00
31	1.8	---	.80	.51	---	6.3	---	4.8	---	.06	.02	---
TOTAL	34.41	47.45	41.94	27.27	93.52	109.1	222.2	95.6	51.25	3.02	1.55	.05
MEAN	1.11	1.58	1.35	.88	3.22	3.52	7.41	3.08	1.71	.097	.050	.002
MAX	2.6	2.2	2.4	1.6	20	6.3	22	9.4	4.7	.25	.07	.02
MIN	.51	.90	.80	.40	.51	2.2	2.7	1.0	.25	.06	.02	.00
AC-FT	68	94	83	54	185	216	441	190	102	6.0	3.1	.10

CAL YR 1979 TOTAL 2175.13 MEAN 5.96 MAX 58 MIN .47 AC-FT 4310
WTR YR 1980 TOTAL 727.36 MEAN 1.99 MAX 22 MIN .00 AC-FT 1440

06306100 SQUIRREL CREEK NEAR DECKER, MT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Scheduled sampling were not possible during periods of no flow.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT 22...	1215	1.2	1550	8.2	6.0	9.6	88	810	300	110	130	67
DEC 17...	1255	1.0	1620	8.0	.0	10.2	80	810	280	110	130	67
FEB 21...	0900	6.3	847	8.2	.0	11.2	88	440	180	67	66	27
MAR 28...	0850	2.4	1220	8.3	.5	10.2	80	580	230	84	91	42
APR 25...	0915	5.4	1100	8.3	8.0	8.4	80	560	210	91	82	35
JUN 03...	1330	4.2	1090	8.4	23.5	7.0	94	600	190	84	94	41
25...	1400	.53	1300	8.4	23.0	7.4	98	650	230	79	110	52
JUL 15...	1120	.07	1550	7.5	10.5	4.4	45	780	280	97	130	75

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)	IODIDE, DISSOLVED (MG/L AS I)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)
OCT 22...	1.0	12	510	450	6.1	.5	.1	.00	16	1100	1.50	3.56
DEC 17...	1.0	8.6	530	470	4.5	.5	.1	.00	14	1120	1.52	3.02
FEB 21...	.6	12	260	200	4.4	.3	--	--	13	546	.74	9.29
MAR 28...	.8	6.4	350	320	3.0	.3	--	--	9.6	767	1.04	4.97
APR 25...	.6	6.1	350	310	2.7	.4	.1	.00	10	748	1.02	10.9
JUN 03...	.7	7.5	410	280	2.6	.5	--	--	11	767	1.04	8.70
25...	.9	7.9	420	350	3.7	.5	--	--	11	867	1.18	1.24
JUL 15...	1.2	11	500	390	3.4	.7	.2	.01	17	1030	1.40	.19

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)
OCT 22...	.07	.010	.01	.80	.81	.88	3.9	.060	.18	11	.2
DEC 17...	.07	.030	.04	.63	.66	.73	3.2	.010	.03	19	.5
FEB 21...	.28	.120	.15	1.6	1.7	2.0	8.8	.260	.80	--	--
MAR 28...	.10	.150	.18	.85	1.0	1.1	4.9	.060	.18	--	--
APR 25...	.60	.040	.05	1.4	1.4	2.0	8.9	.000	.00	16	.1
JUN 03...	.07	.040	.05	1.8	1.8	1.9	8.3	.080	.25	--	--
25...	.20	.100	.12	.82	.92	1.1	5.0	.060	.18	--	--
JUL 15...	.01	.040	.05	.96	1.0	1.0	4.5	.580	1.8	24	.2

06306100 SQUIRREL CREEK NEAR DECKER, MT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
OCT												
22...	1215	--	--	--	--	--	160	--	--	--	--	--
DEC												
17...	1255	--	--	--	--	--	120	--	--	--	--	--
FEB												
21...	0900	--	--	--	--	--	140	--	--	--	--	--
MAR												
28...	0850	--	--	--	--	--	80	--	--	--	--	--
APR												
25...	0915	2	1	1	0	<1	80	0	<1	0	0	0
JUN												
03...	1330	--	--	--	--	--	110	--	--	--	--	--
25...	1400	--	--	--	--	--	160	--	--	--	--	--
JUL												
15...	1120	--	--	--	--	--	170	--	--	--	--	--

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT												
22...	--	--	--	--	--	70	--	--	--	--	--	--
DEC												
17...	--	--	--	--	--	40	--	--	--	--	--	--
FEB												
21...	--	--	--	--	--	180	--	--	--	--	--	--
MAR												
28...	--	--	--	--	--	40	--	--	--	--	--	--
APR												
25...	5	2	3	670	630	40	2	0	3	130	10	120
JUN												
03...	--	--	--	--	--	20	--	--	--	--	--	--
25...	--	--	--	--	--	30	--	--	--	--	--	--
JUL												
15...	--	--	--	--	--	60	--	--	--	--	--	--

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT												
22...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
17...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
21...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
28...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
25...	.0	.0	.0	4	3	1	0	0	0	20	10	6
JUN												
03...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
15...	--	--	--	--	--	--	--	--	--	--	--	--

06306100 SQUIRREL CREEK NEAR DECKER, MT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPERATURE, WATER (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT					
22...	1215	6.0	1.2	55	.18
DEC					
17...	1255	.0	1.0	54	.15
FEB					
21...	0900	.0	6.3	60	1.0
MAR					
28...	0850	.5	2.4	31	.20
APR					
25...	0915	8.0	5.4	57	.83
JUN					
03...	1330	23.5	4.2	74	.84
25...	1400	23.0	.53	21	.03
JUL					
15...	1120	10.5	.07	32	.01

06306250 PRAIRIE DOG CREEK NEAR ACME, WY

LOCATION.--Lat 44°59'02", long 106°50'21", in NE¼SW¼SW¼ sec.23, T.58 N., R.83 W., Sheridan County, Hydrologic Unit 10090101, on right bank 600 ft (183 m) upstream from county bridge, 0.9 mi (1.5 km) upstream from mouth, 2.8 mi (4.5 km) downstream from Coutant Creek, and 7.6 mi (12.2 km) northeast of Acme.

DRAINAGE AREA.--358 mi^2 (927 km^2).

PERIOD OF RECORD.--Water years 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN									
19...	1615	--	0	.00	.0	.00	0	.00	.0
JUL									
23...	0900	.00	0	.00	.0	.00	0	.00	.0
AUG									
11...	1615	.07	0	.00	.0	.00	0	.00	.0
SEP									
09...	1800	.00	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
JUN				
19...	.00	.0	>.01	.0
JUL				
23...	.00	.0	.02	.0
AUG				
11...	.03	.0	.01	.0
SEP				
09...	.00	.0	.01	.0

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT

LOCATION (REVISED).--Lat 45°00'32", long 106°50'08", in NW¼NW¼NE¼ sec.33, T.9 S., R.40 E., Big Horn County, Hydrologic Unit 10090101, on left bank 1.0 mi (1.6 km) north of Wyoming-Montana State line, 1.4 mi (2.3 km) southeast of Decker, 1.6 mi (2.6 km) upstream from Badger Creek, and at mile 200.9 (323.2 km).

DRAINAGE AREA.--1,477 mi^2 (3,825 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1960 to current year. Records published as "near Decker" May 1928 to September 1938, not equivalent owing to intervening drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,429.14 ft (1,045.202 m) National Geodetic Vertical Datum of 1929 (levels by Army Corps of Engineers).

REMARKS.--Records good except those for winter period and June 24 to Sept. 9, which are poor. Flow regulated by many small reservoirs in Wyoming, combined capacity, about 15,000 acre-ft (18.5 hm^3). Diversions for irrigation of about 64,300 acres (260 km^2) above station.

AVERAGE DISCHARGE.--20 years, 508 ft^3/s (14.39 m^3/s), 368,000 acre-ft/yr (454 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,500 ft^3/s (496 m^3/s) May 19, 1978, gage height, 14.25 ft (4.343 m); minimum, 3.0 ft^3/s (0.11 m^3/s) Aug. 23, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,000 ft^3/s (56.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 25	2400	*2,290	64.9	6.18	1.884
Feb. 29	0730	--	--	a6.96	2.121

a Result of freezeup.

Minimum daily discharge, 51 ft^3/s (1.44 m^3/s) July 30, Aug. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	168	243	150	125	130	280	283	552	1060	404	53	104
2	168	253	170	125	135	170	276	632	1010	442	51	113
3	163	231	190	125	140	250	266	597	971	429	56	115
4	173	231	210	120	140	240	259	538	939	388	61	109
5	178	253	200	125	135	220	250	542	1050	372	69	115
6	173	256	180	115	135	240	250	533	1280	333	71	109
7	176	243	160	95	125	280	263	523	1590	293	66	109
8	178	237	140	95	130	270	263	542	1260	259	64	104
9	181	237	130	95	130	260	237	547	1100	240	66	106
10	204	237	140	90	130	300	256	643	1110	234	66	113
11	218	234	120	85	125	390	276	920	1230	207	66	115
12	213	237	125	100	125	500	266	718	1330	176	67	106
13	198	222	130	110	120	400	240	607	1310	160	72	122
14	189	225	125	120	115	450	231	542	1180	150	64	128
15	189	228	115	115	105	450	219	523	1100	152	81	131
16	213	225	100	115	140	350	263	477	1340	145	92	138
17	266	231	80	110	200	360	263	514	1070	135	128	170
18	263	228	110	110	240	380	250	523	913	124	163	184
19	246	231	130	105	260	400	269	528	926	119	133	181
20	234	231	130	100	260	420	286	567	895	113	119	178
21	243	215	125	105	260	380	337	567	840	109	119	215
22	243	210	125	105	260	340	384	758	876	102	113	195
23	225	220	120	115	250	300	417	1130	810	85	109	204
24	225	270	120	130	230	280	438	1470	724	72	106	195
25	222	230	125	150	210	269	477	1730	653	67	100	201
26	218	210	120	110	260	253	500	1900	586	58	90	207
27	215	210	115	100	420	237	486	1250	482	54	94	201
28	213	180	120	90	540	231	473	1020	468	59	102	192
29	263	130	115	105	350	228	464	984	451	54	106	184
30	308	140	115	120	---	231	482	1130	429	51	104	184
31	259	---	120	130	---	247	---	1250	---	53	100	---
TOTAL	6625	6728	4155	3440	5800	9606	9624	24757	28983	5639	2751	4528
MEAN	214	224	134	111	200	310	321	799	966	182	88.7	151
MAX	308	270	210	150	540	500	500	1900	1590	442	163	215
MIN	163	130	80	85	105	170	219	477	429	51	51	104
AC-FT	13140	13340	8240	6820	11500	19050	19090	49110	57490	11180	5460	8980

CAL YR 1979 TOTAL 135083 MEAN 370 MAX 1900 MIN 80 AC-FT 267900
WTR YR 1980 TOTAL 112636 MEAN 308 MAX 1900 MIN 51 AC-FT 223400

06306250 PRAIRIE DOG CREEK NEAR ACME, WY

LOCATION.--Lat 44°59'02", long 106°50'21", in NE¼SW¼SW¼ sec.23, T.58 N., R.83 W., Sheridan County, Hydrologic Unit 10090101, on right bank 600 ft (183 m) upstream from county bridge, 0.9 mi (1.5 km) upstream from mouth, 2.8 mi (4.5 km) downstream from Coutant Creek, and 7.6 mi (12.2 km) northeast of Acme.

DRAINAGE AREA.--358 mi^2 (927 km^2).

PERIOD OF RECORD.--Water years 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN									
19...	1615	--	0	.00	.0	.00	0	.00	.0
JUL									
23...	0900	.00	0	.00	.0	.00	0	.00	.0
AUG									
11...	1615	.07	0	.00	.0	.00	0	.00	.0
SEP									
09...	1800	.00	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
JUN				
19...	.00	.0	>.01	.0
JUL				
23...	.00	.0	.02	.0
AUG				
11...	.03	.0	.01	.0
SEP				
09...	.00	.0	.01	.0

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT

LOCATION (REVISED).--Lat 45°00'32", long 106°50'08", in NW¼NW¼NE¼ sec.33, T.9 S., R.40 E., Big Horn County, Hydrologic Unit 10090101, on left bank 1.0 mi (1.6 km) north of Wyoming-Montana State line, 1.4 mi (2.3 km) southeast of Decker, 1.6 mi (2.6 km) upstream from Badger Creek, and at mile 200.9 (323.2 km).

DRAINAGE AREA.--1,477 mi^2 (3,825 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1960 to current year. Records published as "near Decker" May 1928 to September 1938, not equivalent owing to intervening drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,429.14 ft (1,045.202 m) National Geodetic Vertical Datum of 1929 (levels by Army Corps of Engineers).

REMARKS.--Records good except those for winter period and June 24 to Sept. 9, which are poor. Flow regulated by many small reservoirs in Wyoming, combined capacity, about 15,000 acre-ft (18.5 hm^3). Diversions for irrigation of about 64,300 acres (260 km^2) above station.

AVERAGE DISCHARGE.--20 years, 508 ft^3/s (14.39 m^3/s), 368,000 acre-ft/yr (454 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,500 ft^3/s (496 m^3/s) May 19, 1978, gage height, 14.25 ft (4.343 m); minimum, 3.0 ft^3/s (0.11 m^3/s) Aug. 23, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,000 ft^3/s (56.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 25	2400	*2,290	64.9	6.18	1.884
Feb. 29	0730	--	--	a6.96	2.121

a Result of freezeup.

Minimum daily discharge, 51 ft^3/s (1.44 m^3/s) July 30, Aug. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	168	243	150	125	130	280	283	552	1060	404	53	104
2	168	253	170	125	135	170	276	632	1010	442	51	113
3	163	231	190	125	140	250	266	597	971	429	56	115
4	173	231	210	120	140	240	259	538	939	388	61	109
5	178	253	200	125	135	220	250	542	1050	372	69	115
6	173	256	180	115	135	240	250	533	1280	333	71	109
7	176	243	160	95	125	280	263	523	1590	293	66	109
8	178	237	140	95	130	270	263	542	1260	259	64	104
9	181	237	130	95	130	260	237	547	1100	240	66	106
10	204	237	140	90	130	300	256	643	1110	234	66	113
11	218	234	120	85	125	390	276	920	1230	207	66	115
12	213	237	125	100	125	500	266	718	1330	176	67	106
13	198	222	130	110	120	400	240	607	1310	160	72	122
14	189	225	125	120	115	450	231	542	1180	150	64	128
15	189	228	115	115	105	450	219	523	1100	152	81	131
16	213	225	100	115	140	350	263	477	1340	145	92	138
17	266	231	80	110	200	360	263	514	1070	135	128	170
18	263	228	110	110	240	380	250	523	913	124	163	184
19	246	231	130	105	260	400	269	528	926	119	133	181
20	234	231	130	100	260	420	286	567	895	113	119	178
21	243	215	125	105	260	380	337	567	840	109	119	215
22	243	210	125	105	260	340	384	758	876	102	113	195
23	225	220	120	115	250	300	417	1130	810	85	109	204
24	225	270	120	130	230	280	438	1470	724	72	106	195
25	222	230	125	150	210	269	477	1730	653	67	100	201
26	218	210	120	110	260	253	500	1900	586	58	90	207
27	215	210	115	100	420	237	486	1250	482	54	94	201
28	213	180	120	90	540	231	473	1020	468	59	102	192
29	263	130	115	105	350	228	464	984	451	54	106	184
30	308	140	115	120	---	231	482	1130	429	51	104	184
31	259	---	120	130	---	247	---	1250	---	53	100	---
TOTAL	6625	6728	4155	3440	5800	9606	9624	24757	28983	5639	2751	4528
MEAN	214	224	134	111	200	310	321	799	966	182	88.7	151
MAX	308	270	210	150	540	500	500	1900	1590	442	163	215
MIN	163	130	80	85	105	170	219	477	429	51	51	104
AC-FT	13140	13340	8240	6820	11500	19050	19090	49110	57490	11180	5460	8980

CAL YR 1979 TOTAL 135083 MEAN 370 MAX 1900 MIN 80 AC-FT 267900
WTR YR 1980 TOTAL 112636 MEAN 308 MAX 1900 MIN 51 AC-FT 223400

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
OCT 23...	1320	250	734	8.7	6.0	11.8	107	K18	340	110
NOV 14...	1210	246	801	8.7	1.0	13.6	107	K12	360	130
DEC 18...	1410	104	971	7.9	.0	10.8	83	24	430	200
JAN 30...	1250	126	1040	7.9	.0	10.0	77	K350	430	130
FEB 21...	1220	262	776	8.1	.0	9.4	74	--	340	120
MAR 26...	1300	266	988	8.5	5.0	10.6	94	45	450	190
APR 23...	1330	409	622	8.3	5.0	8.3	73	K630	280	91
JUN 02...	1430	929	368	8.2	13.5	8.3	91	1900	170	47
24...	1305	726	379	8.6	19.5	8.0	98	1100	170	47
JUL 14...	1300	152	652	8.5	22.0	8.8	114	39	300	110
AUG 12...	1210	71	1090	8.4	20.5	7.8	97	90	490	210
21...	0945	--	870	--	16.0	8.6	--	--	--	--
SEP 09...	1210	105	941	8.5	15.0	9.8	108	35	450	190

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT 23...	71	40	32	.8	3.3	260	9	230	190	5.2
NOV 14...	73	43	35	.8	3.8	280	3	240	200	3.5
DEC 18...	91	49	49	1.0	4.4	280	0	230	270	4.1
JAN 30...	91	49	46	1.0	4.5	370	0	300	230	6.2
FEB 21...	67	43	35	.8	5.5	270	0	210	190	6.5
MAR 26...	87	56	47	1.0	5.4	320	0	260	280	5.6
APR 23...	55	34	26	.7	3.2	230	0	190	130	3.3
JUN 02...	37	18	17	.6	3.1	150	0	120	82	.9
24...	40	17	9.0	.3	2.1	150	0	120	59	1.3
JUL 14...	56	38	30	.8	3.2	230	0	190	160	4.0
AUG 12...	88	66	67	1.3	5.3	340	0	270	330	4.5
21...	--	--	--	--	--	--	--	--	--	--
SEP 09...	100	48	42	.9	4.0	310	3	270	280	3.6

YELLOWSTONE RIVER BASIN

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
OCT									
23...	.3	3.8	483	.66	326	8	.03	.00	.020
NOV									
14...	.3	3.3	510	.69	339	16	.01	.00	.060
DEC									
18...	.5	10	364	.50	102	2	.33	.23	.200
JAN									
30...	.4	11	622	.85	212	11	.46	.28	.450
FEB									
21...	.4	9.9	493	.67	349	25	.52	.62	.570
MAR									
26...	.5	7.1	649	.88	466	73	.28	.27	.270
APR									
23...	.3	--	--	--	410	105	.03	.33	.040
JUN									
02...	.3	8.6	241	.33	605	118	.10	.11	.070
24...	.4	8.0	210	.29	412	50	.04	.02	.050
JUL									
14...	.3	2.8	400	.54	164	28	.01	.05	.040
AUG									
12...	.4	4.2	735	1.00	141	23	.01	.04	.070
21...	--	--	--	--	--	--	--	--	--
SEP									
09...	.3	3.4	637	.87	181	10	.00	.00	.000

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	INVERTEBRATES, BENTHIC WET WT. (G/SQ METER)	INVERTEBRATES, BENTHIC TOTAL (ORG/SQ METER)
OCT									
23...	.02	.96	.98	1.0	4.5	.050	--	--	--
NOV									
14...	.07	.60	.66	.67	3.0	.020	--	--	--
DEC									
18...	.24	.48	.68	1.0	4.5	.190	--	--	--
JAN									
30...	.54	1.4	1.8	2.3	10	.120	--	--	--
FEB									
21...	.69	2.0	2.6	3.1	14	.240	--	--	--
MAR									
26...	.33	.73	1.0	1.3	5.7	.160	--	--	--
APR									
23...	.05	1.1	1.1	1.1	5.0	.160	--	--	--
JUN									
02...	.08	2.1	2.2	2.3	10	.090	8.7	--	--
24...	.06	.61	.66	.70	3.1	.050	--	--	--
JUL									
14...	.05	1.8	1.8	1.8	8.0	.040	--	--	--
AUG									
12...	.08	.67	.74	.75	3.3	.050	--	--	--
21...	--	--	--	--	--	--	--	2.1	450
SEP									
09...	.00	.32	.32	.32	1.4	.000	4.6	--	--

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, SUS-PENDED RECOV. (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)
OCT 23...	1320	--	--	--	--	--	--	--	--	130	--	--
NOV 14...	1210	--	--	--	--	--	--	--	--	150	--	--
DEC 18...	1410	--	--	--	--	--	--	--	--	120	--	--
JAN 30...	1250	--	--	--	--	--	--	--	--	110	--	--
FEB 21...	1220	--	--	--	--	--	--	--	--	110	--	--
MAR 26...	1300	--	--	--	--	--	--	--	--	150	--	--
APR 23...	1330	--	--	--	--	--	--	--	--	120	--	--
JUN 02...	1430	290	260	30	1	0	1	0	<1	40	3	0
24...	1305	--	--	--	--	--	--	--	--	50	--	--
JUL 14...	1300	--	--	--	--	--	--	--	--	80	--	--
AUG 12...	1210	--	--	--	--	--	--	--	--	210	--	--
SEP 09...	1210	150	130	20	2	0	4	0	<1	160	1	0

DATE	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)
OCT 23...	--	--	--	--	--	--	--	--	--	--	--	--
NOV 14...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 18...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 30...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 21...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 26...	--	--	--	--	--	--	--	--	--	--	--	--
APR 23...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 02...	3	0	0	0	7	6	1	1800	1800	20	3	2
24...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 09...	3	10	10	0	5	0	5	350	330	20	5	5

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM SUS-PENDED RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, SUS-PENDED RECOV. (UG/L AS MO)
OCT												
23...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
14...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
18...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
30...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
21...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
26...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
23...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
02...	1	10	0	10	90	80	10	.1	.1	.0	0	0
24...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
14...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
12...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
09...	0	40	0	40	50	20	30	.0	.0	.0	2	2

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT											
23...	--	--	--	--	--	--	--	--	--	--	--
NOV											
14...	--	--	--	--	--	--	--	--	--	--	--
DEC											
18...	--	--	--	--	--	--	--	--	--	--	--
JAN											
30...	--	--	--	--	--	--	--	--	--	--	--
FEB											
21...	--	--	--	--	--	--	--	--	--	--	--
MAR											
26...	--	--	--	--	--	--	--	--	--	--	--
APR											
23...	--	--	--	--	--	--	--	--	--	--	--
JUN											
02...	0	7	6	1	0	0	0	2.0	30	--	<3
24...	--	--	--	--	--	--	--	--	--	--	--
JUL											
14...	--	--	--	--	--	--	--	--	--	--	--
AUG											
12...	--	--	--	--	--	--	--	--	--	--	--
SEP											
09...	0	5	2	3	0	0	0	2.0	30	20	10

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
23...	1320	6.0	250	43	29	95
NOV						
14...	1210	1.0	246	25	17	91
DEC						
18...	1410	.0	104	30	8.4	53
JAN						
30...	1250	.0	126	36	12	83
FEB						
21...	1220	.0	262	42	30	92
MAR						
26...	1300	5.0	266	74	53	98
APR						
23...	1330	5.0	409	135	149	97
JUN						
02...	1430	13.5	929	127	319	91
24...	1305	19.5	726	57	112	95
JUL						
14...	1300	22.0	152	32	13	92
AUG						
12...	1210	20.5	71	56	11	85
SEP						
09...	1210	15.0	105	32	9.1	94

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1979 TO AUGUST 1980

DATE	AUG 21,80	AUG 21,80
TIME	0945	1000
TOTAL COUNT	83	6
DIVERSITY: PHYLUM	0.0	0.0
.CLASS	0.0	0.0
..ORDER	1.4	1.5
...FAMILY	3.1	0.0
....GENUS	3.3	0.0
....GENUS-INSECTA	3.3	0.0
ORGANISM	COUNT	COUNT
ARTHROPODA (ARTHROPODS)		
.INSECTA		
..COLEOPTERA		
...ELMIDAE		
....STENELMIS	9	--
..DIPTERA		
...CHIRONOMIDAE		
....CRYPTOCHIRONOMUS	3	--
....POLYPEDILUM	2	--
...SIMULIIDAE	--	3
...TIPULIDAE		
....HEXATOMA	2	--
..EPHEMEROPTERA	--	2
...BAETIDAE		
....DACTYLOBAETIS	4	--
....PSEUDOCLOEON	6	--
...EPHEMERIDAE		
....EPHEMERA	8	--
...HEPTAGENIIDAE		
....RHITHROGENA	8	--
...LEPTOPHLEBIIDAE		
....CHOROTERPES	18	--
...TRICORYTHIDAE		
....TRICORYTHODES	14	--
..PLECOPTERA		
...PERLIDAE		
....ACRONEURIA	2	--
..TRICHOPTERA	--	1
...HYDROPSYCHIDAE		
....CHEUMATOPSYCHE	7	--

06309200 MIDDLE FORK POWDER RIVER NEAR BARNUM, WY

LOCATION.--Lat 43°34'40", long 107°08'16", in SE¼SW¼NE¼ sec.26, T.42 N., R.86 W., Washakie County, Hydrologic Unit 10090201, on left bank 1,100 ft (335 m) downstream from Rock Creek and 13 mi (21 km) southwest of Barnum.

DRAINAGE AREA.--45.2 mi² (117 km²).

PERIOD OF RECORD.--September 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,220 ft (2,201 m), from topographic map. Prior to Oct. 1, 1970, at site 900 ft (274 m) upstream at different datum.

REMARKS.--Records good except those during winter period, which are poor. No diversion above station.

AVERAGE DISCHARGE.--19 years, 32.4 ft³/s (0.918 m³/s), 23,470 acre-ft/yr (28.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,110 ft³/s (201 m³/s) June 15, 1963, gage height, 12.6 ft (3.840 m), from floodmark, site and datum then in use, on basis of slope-area measurement of peak flow; minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Dec. 15, 16, 1964, Jan. 24-27, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 24	2230	*202	5.72	2.47	0.753

Minimum daily discharge, 4.0 ft³/s (0.11 m³/s) Sept. 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	5.8	5.8	5.0	5.3	4.9	6.0	88	65	13	6.0	6.8
2	4.6	6.0	6.0	5.3	5.3	5.2	6.1	83	60	13	6.0	6.0
3	4.6	6.4	6.5	5.3	5.3	5.3	6.3	89	57	12	6.0	5.7
4	4.6	6.0	6.7	5.3	5.3	5.2	6.6	119	54	11	5.7	5.7
5	4.6	6.0	6.4	5.3	5.3	4.9	7.2	120	52	11	5.0	5.3
6	4.6	6.0	6.4	5.3	5.3	5.0	7.6	110	52	10	5.0	5.3
7	4.6	6.0	6.8	5.0	5.3	5.2	7.0	100	47	9.8	4.6	5.0
8	5.0	6.0	6.4	4.6	5.3	5.3	6.5	96	44	10	5.0	5.0
9	6.0	5.8	6.0	4.9	5.3	5.4	6.8	96	42	9.3	5.3	5.7
10	6.0	6.0	6.0	5.2	5.3	5.6	7.2	90	39	8.9	5.0	5.6
11	5.7	6.0	5.5	5.0	5.3	5.8	6.8	72	37	8.9	5.0	5.6
12	5.7	5.8	5.8	5.2	5.3	5.7	6.8	64	34	8.9	4.6	6.8
13	5.7	5.8	6.0	5.6	5.7	5.4	6.4	64	31	8.9	5.0	6.4
14	5.7	6.0	6.8	5.8	5.3	5.8	7.6	73	28	8.5	5.3	6.0
15	5.7	6.2	6.4	5.8	5.7	6.0	8.9	73	26	8.0	8.9	5.6
16	7.2	6.2	5.3	5.8	5.3	5.7	10	79	26	8.0	11	5.6
17	6.8	6.0	6.0	5.7	5.3	5.7	11	79	24	7.6	8.9	6.0
18	6.4	6.0	6.0	5.5	5.7	5.7	13	86	22	8.0	6.8	5.6
19	6.4	5.9	6.0	5.3	5.7	5.3	18	92	21	8.0	5.7	5.3
20	6.4	5.8	6.4	5.0	5.7	5.3	24	86	20	8.0	6.0	5.3
21	6.4	5.6	6.0	5.2	5.3	5.3	29	88	21	8.0	6.0	5.3
22	6.0	5.4	6.0	5.1	5.3	5.7	37	88	21	7.6	5.7	5.6
23	6.4	5.6	5.8	5.2	5.4	5.8	36	83	18	7.6	5.3	5.3
24	6.0	5.6	5.6	5.4	5.7	5.7	41	98	16	7.6	5.3	5.3
25	6.4	5.8	5.7	5.2	5.7	5.8	44	97	15	7.6	5.3	5.3
26	6.0	5.8	5.3	4.8	5.7	5.8	41	66	14	7.2	5.7	4.6
27	6.4	5.6	5.0	4.7	5.3	6.0	44	60	13	6.8	5.7	4.6
28	6.0	5.4	5.0	4.6	5.7	6.0	49	56	13	6.8	5.7	4.0
29	6.8	5.6	5.0	4.7	5.4	6.2	54	58	13	6.4	5.7	4.0
30	6.4	5.6	5.0	4.9	---	6.3	84	83	12	6.8	5.7	4.0
31	6.1	---	5.0	5.1	---	6.1	---	73	---	6.4	7.2	---
TOTAL	179.8	175.7	182.6	160.8	157.5	173.1	638.8	2609	937	269.6	184.1	162.3
MEAN	5.80	5.86	5.89	5.19	5.43	5.58	21.3	84.2	31.2	8.70	5.94	5.41
MAX	7.2	6.4	6.8	5.8	5.7	6.3	84	120	65	13	11	6.8
MIN	4.6	5.4	5.0	4.6	5.3	4.9	6.0	56	12	6.4	4.6	4.0
AC-FT	357	349	362	319	312	343	1270	5170	1860	535	365	322

CAL YR 1979 TOTAL 6774.2 MEAN 18.6 MAX 315 MIN 4.0 AC-FT 13440
WTR YR 1980 TOTAL 5830.3 MEAN 15.9 MAX 120 MIN 4.0 AC-FT 11560

06309450 BEAVER CREEK BELOW BAYER CREEK, NEAR BARNUM, WY

LOCATION.--Lat 43°39'55", long 107°03'48", in SE¼SE¼NW¼ sec.28, T.43 N., R.85 W., Johnson County, Hydrologic Unit 10090201, on left bank 0.2 mi (0.3 km) downstream from Bayer Creek and 7.7 mi (12.4 km) west of Barnum.

DRAINAGE AREA.--10.9 mi (28.2 km).

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS.--WDR WY-79-1: 1975.

GAGE.--Water-stage recorder. Altitude of gage is 7,030 ft (2,143 m), from topographic map. Prior to Mar. 30, 1978, at site 300 ft (91 m) downstream at datum 3.95 ft (1.204 m) lower.

REMARKS.--Records good except those for Nov. 10 to Jan. 25, May 24, which are poor. No diversion above station.

AVERAGE DISCHARGE.--6 years, 7.78 ft^3/s (0.220 m^3/s), 5,640 acre-ft/yr (6.95 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 186 ft^3/s (5.27 m^3/s) July 6, 1978, gage height, 2.72 ft (0.829 m); maximum gage height, 2.93 ft (0.893 m) May 7, 1978 (backwater from snow); minimum daily discharge, 0.80 ft^3/s (0.023 m^3/s) Dec. 30, 31, 1974, Jan. 2, 10-12, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 46 ft^3/s (1.30 m^3/s) May 24, gage height, 1.72 ft (0.524 m); maximum gage height, 2.15 ft (0.655 m) Mar. 18 (backwater from ice); no peak above base of 50 ft^3/s (1.42 m^3/s); minimum daily discharge, 1.3 ft^3/s (0.037 m^3/s) Feb. 16, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	1.9	1.8	1.9	1.8	1.5	1.6	14	12	5.3	3.0	3.1
2	2.3	2.1	1.8	1.8	1.7	1.6	1.8	11	10	5.1	3.1	2.8
3	2.3	2.3	1.7	1.8	1.7	1.6	2.3	9.7	9.3	4.7	3.0	2.8
4	2.3	2.4	1.9	1.8	1.7	1.5	2.2	9.3	9.3	4.6	3.0	2.8
5	2.3	2.4	1.8	1.8	1.6	1.6	2.3	9.3	8.9	4.4	2.8	2.8
6	2.3	2.3	1.9	1.7	1.5	1.7	2.3	8.5	9.7	4.2	2.8	2.8
7	2.3	2.2	1.9	1.6	1.5	1.7	2.0	8.9	9.3	4.4	2.8	2.7
8	2.4	2.3	2.1	1.7	1.5	1.7	2.4	8.9	8.5	4.4	3.0	2.7
9	2.6	1.7	2.1	1.7	1.5	1.8	2.4	9.3	8.5	4.2	3.0	2.7
10	2.6	2.3	1.8	1.7	1.4	1.8	2.3	9.3	8.1	4.1	2.8	2.7
11	2.4	2.4	1.8	1.7	1.5	1.9	2.2	8.1	7.8	3.9	2.7	2.7
12	2.3	2.4	2.3	1.7	1.5	1.8	2.1	7.4	7.5	4.1	3.0	3.0
13	2.3	2.4	2.2	1.7	1.5	1.7	2.2	8.9	7.5	4.1	3.0	3.0
14	2.3	2.4	2.1	1.7	1.5	2.0	2.4	14	7.5	4.1	3.1	2.8
15	2.3	2.3	2.1	1.7	1.4	2.1	3.3	16	8.1	3.9	4.2	2.7
16	2.7	2.3	2.2	1.8	1.3	2.0	3.4	16	7.5	3.9	4.1	2.8
17	2.4	2.4	2.1	1.8	1.4	1.9	4.0	14	7.1	3.7	3.3	2.7
18	2.3	2.4	1.9	1.8	1.4	1.8	4.9	12	6.5	3.6	3.0	2.6
19	2.3	2.3	1.9	1.8	1.4	1.7	6.1	11	6.8	3.7	3.0	2.6
20	2.3	2.3	1.9	1.8	1.4	1.8	7.6	11	6.5	3.7	3.0	2.6
21	2.4	2.2	1.9	1.7	1.4	1.7	8.3	11	6.5	3.6	3.0	2.7
22	2.3	2.0	1.9	1.8	1.4	1.8	10	10	6.3	3.6	2.8	2.7
23	2.4	1.8	2.1	1.9	1.4	1.7	8.1	9.7	6.0	3.4	2.8	2.6
24	2.3	2.0	2.0	2.1	1.3	1.8	9.3	17	5.8	3.4	2.7	2.6
25	2.3	2.0	2.1	1.9	1.4	1.9	9.3	14	5.8	3.4	2.8	2.6
26	2.2	1.9	2.1	1.9	1.5	1.8	8.5	10	5.5	3.4	3.0	2.3
27	2.2	1.8	2.1	1.9	1.5	1.9	8.9	9.7	5.3	3.3	3.0	2.3
28	2.3	1.5	2.1	1.9	1.7	1.9	12	9.3	5.3	3.3	2.8	2.2
29	2.4	1.6	1.9	1.8	1.6	1.8	12	10	5.3	3.1	2.8	2.2
30	1.9	1.8	1.9	1.7	---	1.9	17	12	5.3	3.1	3.0	2.2
31	1.9	---	1.9	1.7	---	1.8	---	13	---	3.1	3.4	---
TOTAL	71.8	64.1	61.3	55.3	43.4	55.2	163.2	342.3	223.5	120.8	93.8	79.8
MEAN	2.32	2.14	1.98	1.78	1.50	1.78	5.44	11.0	7.45	3.90	3.03	2.66
MAX	2.7	2.4	2.3	2.1	1.8	2.1	17	17	12	5.3	4.2	3.1
MIN	1.9	1.5	1.7	1.6	1.3	1.5	1.6	7.4	5.3	3.1	2.7	2.2
AC-FT	142	127	122	110	86	109	324	679	443	240	186	158

CAL YR 1979 TOTAL 1882.0 MEAN 5.16 MAX 27 MIN 1.5 AC-FT 3730
WTR YR 1980 TOTAL 1374.5 MEAN 3.76 MAX 17 MIN 1.3 AC-FT 2730

06309460 BEAVER CREEK ABOVE WHITE PANTHER DITCH, NEAR BARNUM, WY

LOCATION.--Lat 43°41'52", long 106°56'52", in SE¼SW¼NW¼ sec.16, T.43 N., R.84 W., Johnson County, Hydrologic Unit 10090201, on right bank 0.1 mi (0.2 km) upstream from White Panther ditch and 3.0 mi (4.8 km) northwest of Barnum.

DRAINAGE AREA.--24.2 mi² (62.7 km²).

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS.--WDR WY-78-1: 1975-77 (M), WDR WY-79-1: 1975.

GAGE.--Water-stage recorder. Altitude of gage is 5,350 ft (1,631 m), from topograhic map.

REMARKS.--Records good except those for periods of no gage-height record, Dec. 27, Dec. 30 to Feb. 6, Feb. 8 to Mar. 13, which are poor. No diversion above station.

AVERAGE DISCHARGE.--6 years, 16.1 ft³/s (0.456 m³/s), 11,660 acre-ft/yr (14.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 797 ft³/s (22.6 m³/s) July 6, 1978, gage height, 5.94 ft (1.811 m), from floodmarks, from rating curve extended above 140 ft³/s (3.96 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 5.6 ft³/s (0.16 m³/s) Jan. 12, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44 ft³/s (1.25 m³/s) May 24, gage height, 0.97 ft (0.296 m), no peak above base of 70 ft³/s (1.98 m³/s); maximum gage height, 1.39 ft (0.424 m), from backwater from ice during period of missing record Dec. 28 to Feb. 7; minimum daily discharge, 7.2 ft³/s (0.20 m³/s) Apr. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	9.2	9.1	9.0	8.5	8.5	8.3	23	20	13	9.9	10
2	10	8.3	9.1	9.0	8.7	8.7	8.3	19	18	13	9.9	9.5
3	10	9.5	9.1	9.0	8.8	8.5	8.7	18	17	13	9.9	9.9
4	10	10	9.1	8.8	8.7	8.3	8.7	18	17	12	9.9	9.9
5	10	9.5	9.1	9.1	8.5	8.0	9.1	18	17	12	9.9	9.5
6	10	9.5	9.1	8.8	8.4	8.2	9.1	17	17	12	9.5	9.5
7	10	9.1	9.1	8.5	8.3	8.4	7.9	16	17	12	9.5	9.5
8	11	9.1	8.7	8.1	8.1	8.4	7.2	17	17	12	9.5	9.9
9	11	8.7	8.3	8.3	8.3	8.6	8.7	17	16	11	9.5	9.9
10	11	8.3	7.9	8.7	8.3	8.8	8.7	18	15	11	9.5	9.9
11	10	9.5	7.5	8.6	8.4	8.9	8.7	18	15	11	9.5	9.5
12	10	8.7	7.9	8.7	8.3	8.7	8.3	17	15	11	9.5	9.5
13	10	9.1	7.9	9.0	8.4	8.2	8.7	17	15	11	9.5	9.5
14	10	9.1	8.3	9.3	8.1	8.3	8.7	21	15	11	9.9	9.5
15	10	9.1	7.9	9.4	7.4	9.1	9.9	23	16	11	11	9.5
16	11	9.1	7.9	9.4	7.7	9.1	10	23	15	11	12	9.5
17	9.9	9.1	7.9	9.2	7.9	8.3	11	22	15	11	11	9.5
18	9.9	9.5	7.9	9.0	8.2	8.7	13	20	14	11	9.5	9.5
19	9.9	9.1	8.3	8.6	8.2	9.1	14	19	14	11	9.9	9.1
20	9.9	9.1	8.7	8.4	8.2	8.7	16	18	14	11	9.9	9.1
21	10	9.1	9.1	8.6	8.3	8.7	17	18	14	11	9.9	9.5
22	9.9	8.3	9.1	8.5	8.2	8.7	19	18	14	10	9.9	9.5
23	9.9	9.1	8.7	8.6	8.2	8.3	18	17	13	10	9.9	9.5
24	9.9	9.1	8.7	8.8	8.3	9.1	17	20	13	10	9.9	9.5
25	9.9	9.5	9.1	8.5	8.4	8.7	18	25	13	10	9.9	9.5
26	9.5	9.5	9.1	8.0	8.7	8.3	17	19	13	10	9.9	9.5
27	9.9	9.1	9.1	7.6	9.0	8.3	18	18	13	9.9	9.9	8.7
28	9.9	8.9	9.1	7.7	9.2	8.7	19	17	13	9.9	9.9	8.7
29	10	9.0	9.1	7.9	8.8	8.3	20	18	13	9.9	9.9	8.7
30	9.9	9.1	9.0	8.0	---	8.7	23	20	12	9.9	9.9	8.7
31	9.1	---	9.0	8.3	---	8.3	---	21	---	9.9	10	---
TOTAL	311.5	273.3	267.9	267.4	242.5	265.6	379.0	590	450	341.5	307.7	283.5
MEAN	10.0	9.11	8.64	8.63	8.36	8.57	12.6	19.0	15.0	11.0	9.93	9.45
MAX	11	10	9.1	9.4	9.2	9.1	23	25	20	13	12	10
MIN	9.1	8.3	7.5	7.6	7.4	8.0	7.2	16	12	9.9	9.5	8.7
AC-FT	618	542	531	530	481	527	752	1170	893	677	610	562

CAL YR 1979 TOTAL 4870.3 MEAN 13.3 MAX 37 MIN 7.5 AC-FT 9660
WTR YR 1980 TOTAL 3979.9 MEAN 10.9 MAX 25 MIN 7.2 AC-FT 7890

06311000 NORTH FORK POWDER RIVER NEAR HAZELTON, WY

LOCATION.--Lat 44°01'43", long 107°04'55", in NW¼SE¼NW¼ sec.21, T.47 N., R.85 W., Johnson County, Hydrologic Unit 10090201, on right bank 0.5 mi (0.8 km) downstream from Twin Creek, 0.7 mi (1.1 km) upstream from Dullknife Reservoir, 7.2 mi (11.6 km) southwest of Hazelton, and 19 mi (31 km) northwest of Mayoworth.

DRAINAGE AREA.--24.5 mi^2 (63.5 km^2).

PERIOD OF RECORD.--September 1946 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1279: 1947-48(M), 1949, 1950-51(M), 1952.

GAGE.--Water-stage recorder. Altitude of gage is 8,180 ft (2,493 m), from topographic map. Prior to Oct. 1, 1966, at site 0.8 mi (1.3 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station.

AVERAGE DISCHARGE.--34 years, 14.7 ft^3/s (0.416 m^3/s), 10,650 acre-ft/yr (13.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 886 ft^3/s (25.1 m^3/s) June 15, 1953, gage height, 4.34 ft (1.323 m), site and datum then in use, from rating curve extended above 110 ft^3/s (3.12 m^3/s) on basis of slope-area measurement of peak flow; maximum gage height, 6.07 ft (1.850 m) May 17, 1975 (backwater from ice and footbridge); minimum daily discharge, 0.60 ft^3/s (0.017 m^3/s) Oct. 30, 1960, Apr. 9, 12, 15-17, 1961, but may have been less during winter months of water years 1947-48.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 146 ft^3/s (4.13 m^3/s) May 27, gage height, 2.74 ft (0.835 m), no peak above base of 190 ft^3/s (5.38 m^3/s); maximum gage height recorded, 5.34 ft (1.628 m) Apr. 22 (backwater from ice); minimum daily discharge, 1.5 ft^3/s (0.042 m^3/s) Feb. 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	3.4	2.8	2.5	1.8	2.0	2.3	33	67	16	5.4	7.8
2	3.6	3.2	3.0	2.5	1.8	2.0	2.3	24	67	16	6.0	5.7
3	3.4	3.2	3.2	2.4	1.7	1.9	2.3	17	67	15	5.7	4.7
4	3.6	3.3	3.2	2.4	1.7	1.9	2.3	27	70	14	5.4	4.4
5	3.6	3.2	3.2	2.4	1.7	1.9	2.4	37	73	13	5.4	4.4
6	3.6	3.6	3.1	2.2	1.7	2.0	2.5	41	71	12	5.0	4.2
7	3.4	3.4	3.1	2.0	1.6	2.0	2.5	40	59	10	5.0	4.4
8	3.4	3.0	3.1	2.0	1.6	2.0	2.5	37	54	12	5.2	4.4
9	3.8	2.9	3.2	2.0	1.7	2.0	2.8	54	51	11	6.6	4.4
10	4.2	2.7	3.2	2.1	1.6	2.0	2.8	48	54	9.8	5.2	4.2
11	4.2	2.7	3.2	2.1	1.7	2.0	2.8	23	56	9.0	5.0	4.0
12	3.8	2.7	3.0	2.1	1.8	2.1	2.7	19	52	8.7	4.7	6.9
13	3.6	2.7	2.8	2.3	1.6	2.0	2.8	21	44	9.8	5.0	5.2
14	3.6	2.8	2.8	2.3	1.6	2.1	3.1	19	41	8.7	5.4	4.7
15	3.6	2.8	2.7	2.3	1.5	2.1	3.3	18	56	8.7	13	3.8
16	5.2	3.0	2.5	2.3	1.5	2.1	3.3	21	41	8.1	19	4.7
17	5.0	3.2	2.5	2.3	2.0	2.1	3.6	25	37	8.1	9.0	6.3
18	4.4	3.2	2.7	2.3	2.0	2.2	4.5	28	33	8.4	6.3	4.7
19	5.0	3.2	2.7	2.2	2.0	2.2	4.8	25	31	11	5.2	6.0
20	5.0	3.2	2.7	2.2	1.8	2.2	5.0	33	31	10	5.4	5.2
21	4.6	3.1	2.6	2.2	1.8	2.3	6.0	52	34	8.7	5.4	4.4
22	4.5	3.1	2.6	2.2	1.8	2.3	7.6	63	29	7.8	5.2	4.4
23	4.1	3.1	2.6	2.2	1.8	2.3	10	57	24	7.5	4.4	4.4
24	4.1	3.0	2.6	2.3	1.8	2.3	15	56	21	7.2	4.4	4.7
25	3.8	3.0	2.6	2.2	1.8	2.2	20	46	20	8.4	4.2	5.4
26	3.6	2.9	2.5	2.0	1.9	2.2	31	48	18	8.1	5.0	5.0
27	3.8	2.9	2.5	1.8	2.0	2.2	52	74	16	6.9	4.7	4.7
28	4.0	2.9	2.4	1.6	2.0	2.2	55	74	16	6.3	4.4	4.2
29	3.2	2.8	2.4	1.6	2.0	2.2	44	66	15	6.0	4.0	4.0
30	3.6	2.8	2.4	1.6	---	2.3	49	78	16	6.0	4.4	4.0
31	3.6	---	2.4	1.7	---	2.3	---	65	---	6.0	7.2	---
TOTAL	122.7	91.0	86.3	66.3	51.3	65.6	350.2	1269	1264	298.2	186.2	145.3
MEAN	3.96	3.03	2.78	2.14	1.77	2.12	11.7	40.9	42.1	9.62	6.01	4.84
MAX	5.2	3.6	3.2	2.5	2.0	2.3	55	78	73	16	19	7.8
MIN	3.2	2.7	2.4	1.6	1.5	1.9	2.3	17	15	6.0	4.0	3.8
AC-FT	243	180	171	132	102	130	695	2520	2510	591	369	288

CAL YR 1979 TOTAL 5214.3 MEAN 14.3 MAX 132 MIN 2.3 AC-FT 10340
WTR YR 1980 TOTAL 3996.1 MEAN 10.9 MAX 78 MIN 1.5 AC-FT 7930

06311060 NORTH FORK POWDER RIVER BELOW BULL CREEK, NEAR HAZELTON, WY

LOCATION.--Lat 44°00'29", long 107°01'08", in NE¼SE¼SW¼ sec.25, T.47 N., R.85 W., Johnson County, Hydrologic Unit 10090201, on right bank 20 ft (6 m) downstream from Bull Creek, 2.1 mi (3.4 km) downstream from Dullknife Reservoir, and 6.8 mi (10.9 km) southwest of Hazelton.

DRAINAGE AREA.--32.3 mi^2 (83.7 km^2).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,840 ft (2,390 m), from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, Jan. 26 to Mar. 26, which is poor. Flow regulated by Dullknife Reservoir 2.1 mi (3.4 km) upstream, capacity, 4,350 acre-ft (5.36 hm^3).

AVERAGE DISCHARGE.--6 years, 19.2 ft^3/s (0.544 m^3/s), 13,910 acre-ft/yr (17.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 415 ft^3/s (11.8 m^3/s) May 25, 1976, gage height, 4.17 ft (1.271 m); minimum daily, 0.50 ft^3/s (0.014 m^3/s) Jan. 24-30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 163 ft^3/s (4.62 m^3/s) Apr. 22, gage height, 3.49 ft (1.064 m); minimum daily, 0.86 ft^3/s (0.024 m^3/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	5.6	6.0	5.8	4.4	5.4	5.1	13	63	16	40	20
2	16	6.0	6.0	5.9	4.5	5.2	5.1	9.5	70	18	40	20
3	15	6.2	6.0	5.9	4.5	5.0	5.1	5.9	67	16	40	19
4	15	6.4	6.0	5.9	4.5	5.0	5.0	7.3	73	13	38	19
5	15	6.5	6.0	5.9	4.5	4.5	5.1	7.3	74	12	38	19
6	16	6.5	5.9	5.8	4.5	4.5	4.9	5.7	73	12	39	19
7	16	6.4	5.9	5.6	4.5	4.6	4.9	5.4	65	11	38	19
8	16	6.2	5.7	5.4	4.2	4.8	4.5	4.9	57	13	38	18
9	16	6.2	5.7	5.4	4.3	5.0	4.8	5.4	55	12	34	18
10	16	6.2	5.7	5.6	4.5	5.2	5.1	6.8	54	10	29	18
11	16	6.2	5.3	5.9	4.3	5.5	5.1	4.9	57	7.9	29	20
12	16	6.0	5.2	5.9	4.3	5.5	4.7	4.4	55	7.6	29	19
13	16	5.8	5.0	5.9	4.3	5.4	5.0	6.2	47	17	29	18
14	11	5.8	5.4	5.9	4.2	5.6	5.4	5.4	43	29	29	18
15	5.7	6.0	5.2	5.9	4.1	5.8	5.4	5.9	60	29	30	18
16	6.0	6.2	5.0	5.9	3.9	5.6	5.9	6.2	45	33	27	14
17	6.2	6.0	5.4	5.8	4.1	6.0	6.2	5.7	40	35	18	1.4
18	6.2	5.8	6.0	5.9	4.6	6.2	6.8	5.4	35	35	18	1.1
19	6.2	5.6	6.2	5.9	5.0	6.2	8.3	5.7	33	36	17	1.4
20	6.2	5.4	6.2	5.9	5.2	6.0	11	4.9	32	51	18	1.1
21	6.2	5.4	5.9	5.5	5.2	6.0	15	4.4	34	62	17	1.0
22	5.9	5.4	5.7	5.2	5.2	6.0	45	4.0	30	61	17	1.0
23	5.9	5.6	5.7	5.2	5.2	6.0	20	4.0	26	60	24	1.0
24	6.2	5.6	5.7	5.1	5.0	6.2	21	5.7	21	60	32	1.3
25	6.2	5.6	5.7	5.0	5.0	6.0	22	13	20	61	32	1.3
26	6.2	5.6	5.5	4.5	5.0	6.2	15	9.8	18	58	31	1.1
27	5.9	5.4	5.8	4.3	5.2	6.4	12	6.5	18	40	31	1.0
28	5.9	5.4	5.8	4.2	5.4	5.1	15	4.9	14	40	31	.93
29	5.8	5.6	5.8	4.2	5.4	5.0	14	5.9	15	40	32	.93
30	5.8	5.8	5.8	4.2	---	5.0	14	13	16	40	27	.86
31	5.8	---	5.8	4.2	---	4.9	---	13	---	40	20	---
TOTAL	317.3	176.4	177.0	167.7	135.0	169.8	306.4	210.1	1310	975.5	912	311.42
MEAN	10.2	5.88	5.71	5.41	4.66	5.48	10.2	6.78	43.7	31.5	29.4	10.4
MAX	16	6.5	6.2	5.9	5.4	6.4	45	13	74	62	40	20
MIN	5.7	5.4	5.0	4.2	3.9	4.5	4.5	4.0	14	7.6	17	.86
AC-FT	629	350	351	333	268	337	608	417	2600	1930	1810	618

CAL YR 1979 TOTAL 6124.90 MEAN 16.8 MAX 108 MIN 2.4 AC-FT 12150
WTR YR 1980 TOTAL 5168.62 MEAN 14.1 MAX 74 MIN .86 AC-FT 10250

06311400 NORTH FORK POWDER RIVER BELOW PASS CREEK, NEAR MAYOWORTH, WY

LOCATION.--Lat 43°54'41", long 106°53'20", in NW¼NE¼SE¼ sec.36, T.46 N., R.84 W., Johnson County, Hydrologic Unit 10090201, on left bank 0.8 mi (1.3 km) downstream from Pass Creek, 1.2 mi (1.9 km) upstream from Hat Ranch, 7.2 mi (11.6 km) northwest of Mayoworth, and 13 mi (21 km) downstream from Dullknife Reservoir.

DRAINAGE AREA.--100 mi² (259 km²).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,700 ft (1,737 m), from topographic map.

REMARKS.--Records fair. Some regulation for irrigation by Dullknife Reservoir 13 mi (21 km) upstream, capacity, 4,350 acre-ft (5.36 hm³).

AVERAGE DISCHARGE.--7 years, 34.4 ft³/s (0.974 m³/s), 24,920 acre-ft/yr (30.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 890 ft³/s (25.2 m³/s) July 31, 1974, gage height, 7.10 ft (2.164 m), from rating curve extended above 400 ft³/s (11.3 m³/s) on basis of slope-area measurement of peak flow; minimum daily discharge, 13 ft³/s (0.37 m³/s) Feb. 5, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 191 ft³/s (5.41 m³/s) Apr. 22, gage height, 4.85 ft (1.478 m), minimum daily, 16 ft³/s (0.45 m³/s) Jan. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	22	23	22	21	21	20	34	67	30	50	35
2	29	21	22	22	22	21	20	31	81	31	50	34
3	29	21	22	22	22	21	19	26	83	31	50	33
4	28	21	22	22	22	21	19	25	85	28	50	32
5	28	21	22	22	21	22	19	26	88	27	50	32
6	28	21	22	20	21	22	19	25	91	27	50	32
7	28	21	22	18	21	21	20	23	86	26	48	31
8	27	21	22	17	20	21	19	23	78	27	49	30
9	28	21	22	21	20	21	20	23	74	27	48	31
10	28	21	22	23	20	21	19	25	71	26	44	31
11	28	21	20	22	20	21	19	24	71	25	42	30
12	29	21	21	23	20	22	19	22	67	25	40	31
13	29	21	21	22	20	21	19	22	61	25	41	30
14	29	21	23	21	19	21	19	23	56	37	40	29
15	25	21	22	20	18	22	19	23	68	41	42	29
16	27	21	21	20	19	22	19	23	64	45	42	28
17	25	21	22	20	20	22	19	23	55	49	35	25
18	23	21	22	20	21	22	19	23	50	51	32	22
19	23	21	22	20	22	22	23	24	48	51	31	23
20	23	21	22	20	22	22	37	23	47	57	31	22
21	23	21	22	20	22	21	60	23	48	71	30	23
22	22	20	23	20	22	21	88	23	47	71	30	22
23	22	21	23	20	21	21	71	23	43	68	32	22
24	22	21	23	20	21	20	56	23	40	68	38	22
25	22	21	23	20	21	20	54	33	37	68	40	22
26	22	21	22	16	21	20	40	29	34	68	42	20
27	22	20	22	17	21	20	32	28	34	55	41	20
28	22	18	23	17	21	20	32	26	31	51	41	20
29	23	24	22	18	21	20	36	26	29	51	41	21
30	23	23	21	19	---	19	32	33	30	50	42	21
31	22	---	22	20	---	20	---	32	---	50	37	---
TOTAL	788	631	683	624	602	651	907	790	1764	1357	1279	803
MEAN	25.4	21.0	22.0	20.1	20.8	21.0	30.2	25.5	58.8	43.8	41.3	26.8
MAX	29	24	23	23	22	22	88	34	91	71	50	35
MIN	22	18	20	16	18	19	19	22	29	25	30	20
AC-FT	1560	1250	1350	1240	1190	1290	1800	1570	3500	2690	2540	1590

CAL YR 1979 TOTAL 12911 MEAN 35.4 MAX 173 MIN 17 AC-FT 25610
WTR YR 1980 TOTAL 10879 MEAN 29.7 MAX 91 MIN 16 AC-FT 21580

06312500 POWDER RIVER NEAR KAYCEE, WY

LOCATION.--Lat 43°41'35", long 106°31'48", in NE¼NW¼SW¼ sec.13, T.43 N., R.81 W., Johnson County, Hydrologic Unit 10090202, on left bank at D Ranch, 600 ft (183 m) downstream from headgate of Sussex Irrigation Canal, 2.0 mi (3.2 km) downstream from confluence of North and Middle Forks, and 6.0 mi (9.7 km) east of Kaycee.

DRAINAGE AREA.--980 mi^2 (2,540 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October to December 1933, March to August 1934, November 1934, May 1935, April 1938 to June 1940, October 1940 to September 1971, October 1978 to September 1980 (discontinued). Monthly discharge only for some periods, published in WSP 1309. Prior to October 1960, published as Middle Fork Powder River near Kaycee.

REVISED RECORDS.--WSP 1309: 1934.

GAGE.--Water-stage recorder. Datum of gage is 4,533.76 ft (1,381.890 m), National Geodetic Vertical Datum of 1929. Prior to Nov. 16, 1940, nonrecording gage at site 50 ft (15 m) upstream at same datum.

REMARKS.--Records fair except those for winter period and those below 20 ft^3/s (0.57 m^3/s), which are poor. Diversion above station for irrigation of about 14,900 acres (60.3 km^2), of which about 4,600 acres (18.6 km^2) are below station.

AVERAGE DISCHARGE.--34 years (water years 1938-39, 1940-71, 1979-80), 127 ft^3/s (3.597 m^3/s), 92,010 acre-ft/yr (113 hm^3/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,230 ft^3/s (148 m^3/s) Aug. 11, 1941, gage height, 12.57 ft (3.831 m), from rating curve extended above 1,900 ft^3/s (53.8 m^3/s) on basis of slope-area measurements at gage heights 8.98 ft (2.737 m), 11.17 ft (3.405 m), and 12.57 ft (3.831 m); no flow July 14-16, Aug. 1-11, 14, 1938, Aug. 8, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 30, 1923, reached a stage of about 18.0 ft (5.486 m), discharge not determined, and flood of June 3, 1936, reached a stage of 14.3 ft (4.359 m), discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 930 ft^3/s (26.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Aug. 15	0100	*987	28.0	4.03	1.228

Minimum daily discharge, 0.26 ft^3/s (0.007 m^3/s) Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	101	110	94	85	128	128	204	179	.71	.57	65
2	22	106	122	96	96	122	128	222	118	.57	.71	32
3	38	109	127	91	103	119	126	193	105	.57	.57	16
4	50	114	125	85	108	107	128	178	79	.57	.57	4.3
5	46	120	120	83	105	93	128	189	64	.57	.71	.57
6	50	118	117	76	105	98	137	182	71	.57	.71	.35
7	54	114	115	61	103	113	135	158	94	.71	.71	.26
8	56	106	120	44	99	117	121	134	78	.57	.57	.35
9	63	111	127	45	96	120	109	100	54	.71	.57	.46
10	72	108	122	64	101	128	114	108	28	.57	.57	.85
11	67	116	100	67	103	135	120	143	15	.71	.71	.57
12	65	108	81	75	110	139	114	201	8.7	.57	.71	1.6
13	64	114	80	87	110	125	108	182	6.0	.71	.71	1.2
14	63	113	93	97	103	126	109	121	4.0	.71	2.0	.85
15	76	118	87	100	90	147	109	123	124	.71	451	1.6
16	95	111	82	106	91	135	116	101	64	.71	195	3.6
17	103	113	98	104	99	125	113	66	38	.71	113	8.2
18	98	114	113	100	116	118	111	63	14	.71	49	9.7
19	97	116	121	92	133	126	118	71	5.0	.57	13	8.2
20	97	118	123	87	152	126	130	68	2.0	.57	2.7	6.1
21	98	111	121	79	175	123	164	52	1.0	.71	1.0	12
22	97	86	118	80	164	123	185	39	.71	.85	.85	21
23	96	100	114	84	152	121	256	22	.85	.85	1.4	23
24	96	106	112	86	137	118	238	14	1.2	.85	.71	24
25	95	115	113	79	137	123	180	290	1.6	.71	.57	24
26	92	110	110	66	151	121	178	178	1.2	.57	.57	29
27	93	97	103	58	174	114	158	105	1.2	.57	.46	28
28	96	90	99	56	157	113	145	54	1.6	.57	.46	29
29	98	93	95	62	140	118	145	36	1.2	.46	.46	34
30	103	96	90	68	---	114	160	150	.71	.46	3.0	35
31	101	---	93	76	---	123	---	109	---	.57	30	---
TOTAL	2360	3252	3351	2448	3495	3758	4211	3856	1161.97	19.97	873.57	420.76
MEAN	76.1	108	108	79.0	121	121	140	124	38.7	.64	28.2	14.0
MAX	103	120	127	106	175	147	256	290	179	.85	451	65
MIN	19	86	80	44	85	93	108	14	.71	.46	.46	.26
AC-FT	4680	6450	6650	4860	6930	7450	8350	7650	2300	40	1730	835

CAL YR 1979 TOTAL 40757.52 MEAN 112 MAX 706 MIN .73 AC-FT 80840
WTR YR 1980 TOTAL 29207.27 MEAN 79.8 MAX 451 MIN .26 AC-FT 57930

06312500 POWDER RIVER NEAR KAYCEE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-47, 1949-54, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 17...	1100	--	108	1480	8.2	8.5	600	9.9	520	460
NOV 14...	1200	--	137	1180	8.2	.5	20	12.4	220	430
DEC 12...	1300	81	--	1230	8.1	.0	15	11.6	--	520
JAN 16...	1130	106	--	1020	8.0	.5	25	12.0	K70	430
FEB 20...	1140	152	--	910	8.0	1.0	120	11.8	K50	400
APR 15...	1130	108	--	1230	8.4	12.0	500	10.0	220	460
MAY 02...	1430	--	210	660	--	14.0	200	8.4	570	230
JUN 12...	1530	--	8.7	1190	--	24.5	15	7.3	300	410
JUL 14...	1340	--	.86	1880	--	26.0	10	6.9	270	630
AUG 12...	1115	--	.86	1740	8.2	19.5	35	8.0	67	560
SEP 02...	1245	--	34	1620	8.3	17.0	380	7.9	870	580

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
OCT 17...	270	120	38	160	3.3	5.5	230	0	190
NOV 14...	230	100	41	93	2.0	3.3	240	0	200
DEC 12...	310	140	40	100	1.9	3.8	260	0	210
JAN 16...	240	100	43	72	1.5	3.5	230	0	190
FEB 20...	230	110	31	80	1.7	3.4	210	0	170
APR 15...	280	110	45	80	1.6	3.5	220	0	180
MAY 02...	110	60	20	36	1.0	3.7	150	0	120
JUN 12...	240	97	41	95	2.0	3.5	210	0	170
JUL 14...	430	150	64	180	3.1	4.4	240	0	200
AUG 12...	320	140	50	150	2.8	3.6	290	0	240
SEP 02...	400	140	58	120	2.2	4.0	220	0	180

06312500 POWDER RIVER NEAR KAYCEE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 17...	530	50	.6	7.0	1020	1.39	297	.20	.600
NOV 14...	390	45	.4	6.3	800	1.09	296	.30	.040
DEC 12...	430	53	.5	9.4	907	1.23	198	.48	.000
JAN 16...	320	45	.5	9.0	716	.97	205	2.1	.060
FEB 20...	330	46	.5	8.7	719	.98	295	1.4	.300
APR 15...	380	51	.3	--	--	--	--	.04	.040
MAY 02...	150	12	.3	8.0	366	.50	208	.43	.620
JUN 12...	380	44	.6	8.2	770	1.05	18.1	.02	.050
JUL 14...	650	110	.6	7.5	1300	1.77	3.02	.00	.030
AUG 12...	590	110	.6	7.2	1190	1.62	2.76	.08	.090
SEP 02...	560	56	.7	12	1100	1.50	101	.15	.010

06313000 SOUTH FORK POWDER RIVER NEAR KAYCEE, WY

LOCATION.--Lat 43°36'27", long 106°34'15", in SE¼SW¼NW¼ sec.15, T.42 N., R.81 W., Johnson County, Hydrologic Unit 10090203, on right bank 1.2 mi (1.9 km) upstream from bridge on old U.S. Highway 87, 1.8 mi (2.9 km) upstream from I-25 bridge, 8.5 mi (13.7 km) southeast of Kaycee, and 9.2 mi (14.8 km) upstream from mouth.

DRAINAGE AREA.--1,150 mi^2 (2,978 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July to October 1911, April 1938 to June 1940, May 1950 to September 1969, October 1978 to September 1980 (discontinued). Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 4,620 ft (1,410 m), from topographic map. May 11 to Nov. 18, 1911, non-recording gage at site 3.2 mi (5.1 km) downstream at different datum. Apr. 9, 1938, to June 30, 1940, non-recording gage and May 1, 1950, to Dec. 3, 1956, water-stage recorder at site 1.1 mi (1.8 km) downstream at different datums. Dec. 4, 1956, to Sept. 30, 1969, at site 1.2 mi (1.9 km) downstream at different datums.

REMARKS.--Records poor. Adjudications for 16 small reservoirs, combined capacity, 1,300 acre-ft (1.6 hm^3) for storage of water above station for stock and irrigation use. Water rights totaling 62.4 ft^3/s (1.77 m^3/s) for irrigation of about 4,350 acres (5.4 hm^3) above station.

AVERAGE DISCHARGE.--22 years (water years 1939, 1951-69, 1979-80) 35.7 ft^3/s (1.011 m^3/s), 25,860 acre-ft/yr (31.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,500 ft^3/s (1,010 m^3/s) May 22, 1962, gage height, 14.43 ft (4.398 m), site and datum then in use, from rating curve extended above 3,200 ft^3/s (90.6 m^3/s) on basis of slope-area measurement of peak flow; no flow in 1911, 1939, 1969, and 1979 water years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 25	0300	a*8,310	235	b12.69	3.868
Aug 15	2000	1,370	38.8	7.50	2.286

a-From rating curve extended above 800 ft^3/s (22.7 m^3/s) on basis of slope-area measurement of peak flow.
b-From floodmarks.

Minimum daily discharge, 0.02 ft^3/s (0.001 m^3/s) Aug. 11-13.

CORRECTIONS.--The 1979 water year record is rated "poor" superceding the rating published in the report for 1979.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	2.4	1.1	1.3	1.0	53	30	21	294	.27	.09	2.0
2	.05	2.2	1.2	1.3	1.1	44	40	20	118	.71	.07	.89
3	.05	2.0	1.7	1.3	1.2	50	47	20	50	11	.05	.31
4	.05	1.9	2.4	1.3	1.3	34	49	21	31	3.1	.04	.18
5	.05	1.8	3.3	1.4	1.4	31	62	21	20	1.3	.04	.12
6	.05	1.7	4.7	1.2	1.4	35	70	19	13	.63	.03	.09
7	.05	1.7	6.6	.90	1.4	37	62	19	9.0	.31	.03	.09
8	.05	1.6	9.0	.80	1.2	38	50	23	7.0	.18	.03	.07
9	.05	1.6	12	.97	1.1	38	36	21	6.0	.18	.03	.07
10	.05	1.5	14	1.1	1.1	38	30	30	5.0	.15	.03	.07
11	.05	1.6	12	1.0	1.1	54	25	74	4.7	.15	.02	.07
12	.05	1.5	8.0	1.1	1.1	50	24	186	4.6	.15	.02	.05
13	.05	1.6	4.5	1.7	1.1	30	21	146	4.7	.15	.02	.05
14	.05	1.6	4.0	2.8	.92	46	18	279	4.7	.15	.34	.05
15	.05	1.7	3.5	4.2	.80	57	22	154	64	.15	357	.05
16	3.9	1.9	2.7	5.8	.70	61	18	102	128	.15	235	.07
17	3.8	2.2	2.3	6.6	.80	33	16	72	29	.12	95	.05
18	1.6	2.2	2.6	5.6	3.0	35	14	62	12	.12	36	.05
19	.85	2.0	3.5	3.6	138	38	16	54	7.1	.09	13	.05
20	.52	1.9	4.9	2.2	450	31	16	52	5.0	.09	5.8	.05
21	1.1	1.7	6.6	1.8	383	35	14	44	4.0	.09	2.7	.04
22	.85	1.4	6.3	1.5	161	37	14	38	3.5	.09	1.2	.04
23	.64	1.5	4.8	1.5	92	31	13	31	2.3	.09	.49	.04
24	.85	1.5	3.4	1.8	72	30	16	29	1.7	.09	.22	.04
25	1.8	1.5	2.9	1.6	40	28	16	2160	1.4	.12	.07	.05
26	2.0	1.4	2.4	1.3	55	30	17	298	.99	3.0	.07	.04
27	2.2	1.2	2.0	.95	99	23	21	120	.56	2.0	.05	.04
28	2.4	1.0	1.8	.70	93	23	22	68	.37	2.2	.04	.04
29	6.0	.90	1.5	.70	76	24	20	61	.27	.56	.04	.04
30	3.9	1.0	1.3	.80	---	23	21	54	.22	.15	9.9	.04
31	2.8	---	1.2	.90	---	24	---	52	---	.12	10	---
TOTAL	37.96	49.70	138.2	59.72	1680.72	1141	840	4351	832.11	27.66	767.42	4.84
MEAN	1.22	1.66	4.46	1.93	58.0	36.8	28.0	140	27.7	.89	24.8	.16
MAX	6.0	2.4	14	6.6	450	61	70	2160	294	11	357	2.0
MIN	.05	.90	1.1	.70	.70	23	13	19	.22	.09	.02	.04
AC-FT	75	99	274	118	3330	2260	1670	8630	1650	55	1520	9.6

CAL YR 1979 TOTAL 12803.19 MEAN 35.1 MAX 384 MIN .00 AC-FT 25400
WTR YR 1980 TOTAL 9930.33 MEAN 27.1 MAX 2160 MIN .02 AC-FT 19700

06313000 SOUTH FORK POWDER RIVER NEAR KAYCEE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-53, 1968 to current year.

REMARKS.--No flow observed Oct. 13.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARD-NESS (MG/L AS CACO3)
NOV										
14...	1110	1.6	--	4700	8.0	.5	70	11.4	210	1400
DEC										
12...	1120	8.0	--	3900	7.5	.0	60	--	50	1500
JAN										
16...	1040	5.8	--	3000	8.1	.5	50	11.8	K10	1000
FEB										
20...	1030	450	--	2050	7.9	1.0	1800	11.8	230	530
APR										
15...	1030	--	23	4050	8.3	13.0	20	8.8	520	1000
MAY										
02...	1240	--	19	3470	--	16.5	1500	8.0	K1600	950
12...	1320	--	220	2410	--	5.0	5500	10.2	15000	500
JUN										
13...	1400	--	4.5	2460	--	29.5	1	6.7	300	1300
JUL										
14...	1150	--	.17	4680	--	27.5	8	7.6	48	1400
AUG										
12...	0925	--	E.02	4360	7.8	14.5	10	7.6	K410	1500
SEP										
02...	1415	--	.71	4500	8.3	24.0	40	7.1	38	1600

E-Estimate.
K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
NOV									
14...	1200	390	98	580	6.8	9.5	240	0	200
DEC									
12...	1300	420	100	750	8.5	11	240	0	200
JAN									
16...	860	250	92	380	5.2	6.8	180	0	150
FEB									
20...	330	140	46	250	4.7	7.8	240	0	200
APR									
15...	820	130	170	630	8.6	12	220	0	180
MAY									
02...	770	230	89	480	6.8	9.9	220	0	180
12...	370	120	49	360	7.0	3.8	160	0	130
JUN									
13...	1200	350	98	640	7.8	13	140	0	120
JUL									
14...	1300	390	110	580	6.7	13	170	0	140
AUG									
12...	1300	430	110	570	6.3	12	260	0	210
SEP									
02...	1400	410	130	640	7.1	13	190	0	160

06313000 SOUTH FORK POWDER RIVER NEAR KAYCEE, WY--Continued

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV									
14...	2000	220	1.1	6.8	3430	4.66	14.8	.80	.120
DEC									
12...	2600	160	1.1	7.6	4170	5.67	90.1	.41	.060
JAN									
16...	1500	83	1.0	6.6	2430	3.30	38.1	5.2	.100
FEB									
20...	760	30	.8	5.0	1370	1.86	1660	2.2	4.000
APR									
15...	1960	140	2.8	9.8	3200	4.35	199	10	1.100
MAY									
02...	1700	70	.9	8.0	2700	3.67	139	1.5	1.300
12...	1100	43	.9	5.4	770	1.05	457	1.8	1.800
JUN									
13...	2300	91	3.3	8.2	3600	4.90	43.7	.01	.010
JUL									
14...	2300	140	1.1	9.4	3700	5.03	1.70	.00	.030
AUG									
12...	2400	110	1.1	10	3770	5.13	--	.00	.020
SEP									
02...	2500	84	1.1	9.3	3900	5.30	7.48	.77	.080

06313180 DUGOUT CREEK TRIBUTARY NEAR MIDWEST, WY

LOCATION.--Lat 43°26'11", long 106°25'11", in SE¼NW¼ sec.14, T.40 N., R.80 W., Natrona County, Hydrologic Unit 10090204, on left bank 1.1 mi (1.8 km) north of Smoky Gap Road, 4.0 mi (6.4 km) upstream from mouth, and 6.5 mi (10.5 km) west of Midwest.

DRAINAGE AREA.--0.8 mi² (2.1 km²).

PERIOD OF RECORD.--Annual maximum, water years 1965-74. October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,930 ft (1,503 m), from topographic map. May 4, 1965, to Sept. 30, 1974, crest-stage gage at present site and datum. Sharp crested weir forms low flow control since June 2, 1980.

AVERAGE DISCHARGE.--6 years, 0.19 ft³/s (0.005 m³/s), 138 acre-ft/yr (170,000 m³/yr).

REMARKS.--Records poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,590 ft³/s (45.0 m³/s) July 15, 1967, gage height, 9.10 ft (2.774 m), from floodmarks, from rating curve extended above 7 ft³/s (0.20 m³/s) on basis of slope-area measurement of peak flow; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15 ft³/s (0.42 m³/s) Aug. 14, gage height, 1.52 ft (0.463 m), from theoritical weir computations; no peak above base of 200 ft³/s (5.66 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.32	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.20	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	1.6	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.64	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.32	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.37	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.30	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	2.0	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.37	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.20	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.06	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.01	---	.00	.10	---
TOTAL	.01	.00	.05	.00	3.05	.00	.47	2.65	.43	.00	.42	.00
MEAN	.000	.000	.002	.000	.11	.000	.016	.085	.014	.000	.014	.000
MAX	.01	.00	.05	.00	2.0	.00	.32	1.6	.37	.00	.32	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.02	.00	.10	.00	6.0	.00	.9	5.3	.9	.00	.8	.00

CAL YR 1979 TOTAL 18.42 MEAN .050 MAX 2.1 MIN .00 AC-FT 37
WTR YR 1980 TOTAL 7.08 MEAN .019 MAX 2.0 MIN .00 AC-FT 14

06313400 SALT CREEK NEAR SUSSEX, WY

LOCATION.--Lat 43°37'19", long 106°22'04", in NE¼NE¼SE¼ sec.8, T.42 N., R.79 W., Johnson County, Hydrologic Unit 10090204, on left bank 200 ft (61 m) upstream from bridge on West Sussex Dugout oil field road, 6.3 mi (10.1 km) southwest of Sussex, and 12.6 mi (20.3 km) upstream from mouth.

DRAINAGE AREA.--769 mi^2 (1,992 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,480 ft (1,366 m), from topographic map.

REMARKS.--Records poor. Some regulation by Lower Salt Creek Reservoir, capacity, 2,710 acre-ft (3.34 hm^3).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft^3/s (289 m^3/s) May 18, 1978, gage height, 9.88 ft (3.011 m), from floodmark, from rating curve extended above 2,300 ft^3/s (65 m^3/s) on basis of slope-area measurement of peak flow; minimum daily discharge, 12 ft^3/s (0.34 m^3/s) Aug. 21-25, Sept. 5, 6, 17, 18, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 867 ft^3/s (24.6 m^3/s) Feb. 21, gage height, 5.11 ft (1.558 m), backwater from ice; minimum daily discharge, 15 ft^3/s (0.42 m^3/s) Nov. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	31	21	36	29	48	80	30	34	23	22	26
2	22	31	24	36	31	47	77	35	37	26	23	24
3	23	31	27	35	34	48	85	32	31	34	22	23
4	25	32	33	34	36	45	79	32	27	26	23	24
5	26	32	36	35	35	40	64	35	26	24	24	25
6	26	34	36	34	36	41	58	33	27	23	24	24
7	28	33	35	30	35	48	52	31	29	25	23	25
8	24	32	36	27	32	55	50	29	29	26	23	25
9	27	32	36	28	33	55	58	32	28	25	26	25
10	27	34	34	30	34	53	69	35	28	23	25	26
11	28	34	32	28	35	55	52	51	26	22	26	26
12	29	35	27	29	35	57	43	108	28	23	26	27
13	30	34	26	32	34	53	38	193	28	24	26	28
14	31	34	29	36	32	60	35	96	26	24	27	26
15	31	33	27	35	29	60	34	55	71	24	54	26
16	33	33	24	34	31	48	33	44	47	25	42	26
17	31	33	27	33	35	42	33	37	27	26	38	29
18	31	33	30	30	68	40	33	34	26	25	28	28
19	30	33	36	26	242	42	33	33	26	26	26	27
20	26	25	39	25	700	47	31	32	24	26	28	26
21	27	19	38	27	600	46	31	31	26	27	29	26
22	29	15	36	27	321	46	31	29	38	28	29	26
23	28	18	33	29	210	45	30	28	24	75	28	26
24	28	20	33	31	147	45	32	30	22	26	26	26
25	30	22	34	29	110	48	31	39	22	25	26	27
26	30	21	34	25	84	50	30	36	22	26	26	26
27	31	19	34	23	74	47	32	32	21	26	26	26
28	29	17	36	23	64	50	30	28	21	24	25	28
29	37	17	34	24	56	52	31	29	22	22	25	28
30	39	18	34	26	---	48	33	33	22	22	31	26
31	32	---	35	27	---	66	---	30	---	23	33	---
TOTAL	890	835	996	924	3242	1527	1348	1352	865	824	860	781
MEAN	28.7	27.8	32.1	29.8	112	49.3	44.9	43.6	28.8	26.6	27.7	26.0
MAX	39	35	39	36	700	66	85	193	71	75	54	29
MIN	22	15	21	23	29	40	30	28	21	22	22	23
AC-FT	1770	1660	1980	1830	6430	3030	2670	2680	1720	1630	1710	1550

CAL YR 1979 TOTAL 15542 MEAN 42.6 MAX 360 MIN 15 AC-FT 30830
WTR YR 1980 TOTAL 14444 MEAN 39.5 MAX 700 MIN 15 AC-FT 28650

06313400 SALT CREEK NEAR SUSSEX, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949, 1952, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT											
17...	0920	42	7800	8.5	6.0	--	9.2	7.1	280	0	54
NOV											
14...	0930	31	7000	8.3	.5	--	12.4	--	290	0	60
DEC											
12...	1000	27	7000	8.1	.0	--	--	7.0	360	0	71
JAN											
16...	0930	34	6500	8.1	.5	--	5.6	--	410	0	79
FEB											
07...	1620	40	8000	8.5	.0	--	1.6	--	330	0	69
MAR											
13...	1500	54	6380	--	5.5	--	9.6	>6.0	460	0	110
APR											
10...	1600	--	>8000	--	11.5	1600	7.0	--	--	--	--
17...	1500	37	6250	--	18.5	--	6.8	6.5	400	0	76
MAY											
12...	1000	103	5540	--	4.5	--	9.4	--	480	0	84
16...	1200	--	>8000	8.0	14.0	600	7.3	--	--	--	--
JUN											
13...	0940	24	6830	--	18.5	--	8.2	3.1	300	0	46
14...	1215	--	6780	8.3	25.0	80	7.6	--	--	--	--
JUL											
14...	1000	18	6710	--	18.0	--	6.6	4.3	270	0	47
AUG											
11...	0930	25	6670	8.3	16.0	--	7.6	4.4	260	110	44
20...	1430	--	6100	--	22.0	220	6.7	--	--	--	--
SEP											
12...	0920	27	6490	8.3	14.5	--	7.8	3.6	260	0	52
23...	1600	--	6100	8.4	16.5	45	7.9	--	--	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT											
17...	35	1500	39	18	850	0	700	700	1500	1.6	22
NOV											
14...	34	1400	36	23	850	0	700	870	1300	1.7	20
DEC											
12...	45	1600	37	--	970	0	800	1060	1400	1.5	12
JAN											
16...	51	1300	28	16	740	0	610	930	1100	2.7	18
FEB											
07...	39	1300	31	20	810	0	660	720	1200	1.4	23
MAR											
13...	47	1400	28	17	840	0	690	1100	1200	2.1	17
APR											
10...	--	--	--	--	--	--	--	--	--	--	--
17...	51	1300	28	21	670	0	550	1000	1200	1.2	20
MAY											
12...	68	1100	22	13	590	0	480	1400	720	1.2	15
16...	--	--	--	--	--	--	--	--	--	--	--
JUN											
13...	44	1500	38	18	840	0	690	940	1300	3.2	27
14...	--	--	--	--	--	--	--	--	--	--	--
JUL											
14...	36	1400	37	19	840	0	690	800	1300	1.5	24
AUG											
11...	36	1500	41	18	180	0	150	1600	1300	1.5	25
20...	--	--	--	--	--	--	--	--	--	--	--
SEP											
12...	31	1400	38	22	760	21	660	800	1300	1.4	21
23...	--	--	--	--	--	--	--	--	--	--	--

06313400 SALT CREEK NEAR SUSSEX, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)
OCT										
17...	4250	5.78	482	.19	.10	.180	.22	1.0	1.2	1.4
NOV										
14...	4130	5.62	346	.04	.00	.350	.42	.09	.44	.48
DEC										
12...	--	6.35	--	.00	.85	.650	.79	.55	1.2	1.2
JAN										
16...	3870	5.26	355	.06	.73	.490	.59	.81	1.3	1.4
FEB										
07...	3770	5.13	407	.05	.03	.490	.59	.91	1.4	1.5
MAR										
13...	4310	5.86	628	.03	.02	.360	.44	1.1	1.5	1.5
APR										
10...	--	--	--	--	--	--	--	--	--	--
17...	4000	5.44	400	.03	<.01	.150	.18	1.2	1.3	1.3
MAY										
12...	3700	5.03	1030	.04	.64	.300	.36	2.9	3.2	3.2
16...	--	--	--	--	--	--	--	--	--	--
JUN										
13...	4300	5.85	279	.00	.04	.060	.07	.13	.19	.19
14...	--	--	--	--	--	--	--	--	--	--
JUL										
14...	4000	5.44	194	.00	.00	.080	.10	.92	1.0	1.0
AUG										
11...	4620	6.28	312	.00	.00	.000	.00	.67	.67	.67
20...	--	--	--	--	--	--	--	--	--	--
SEP										
12...	4020	5.47	293	.00	.00	.000	.00	.82	.82	.82
23...	--	--	--	--	--	--	--	--	--	--

DATE	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	INVERTEBRATES, BENTHIC TOTAL (ORG/SQ METER)	INVERTEBRATES, BENTHIC WET WT. (G/SQ METER)
OCT										
17...	6.2	.150	.46	--	--	--	--	--	--	--
NOV										
14...	2.1	.110	.34	--	--	--	--	--	--	--
DEC										
12...	5.3	.020	.06	--	--	--	--	--	--	--
JAN										
16...	6.0	.040	.12	--	--	--	--	--	--	--
FEB										
07...	6.4	.120	.37	--	--	--	--	110	--	--
MAR										
13...	6.8	.680	2.1	--	--	--	.01	50	--	--
APR										
10...	--	--	--	--	--	--	--	--	--	--
17...	5.9	.320	.98	--	--	--	--	26	--	--
MAY										
12...	14	1.600	4.9	--	--	--	.00	19	--	--
16...	--	--	--	--	--	--	--	--	--	--
JUN										
13...	.84	.150	.46	--	--	--	--	11	--	--
14...	--	--	--	12	.9	8.3	--	7	--	--
JUL										
14...	4.4	.180	.15	--	--	--	--	8	--	--
AUG										
11...	3.0	.220	.40	--	--	--	--	8	--	--
20...	--	--	--	--	--	--	--	--	300	.0
SEP										
12...	3.6	.280	.58	--	--	--	--	7	--	--
23...	--	--	--	--	--	--	--	--	--	--

06313400 SALT CREEK NEAR SUSSEX, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT 17...	0920	50	--	--	6	--	--	0	--	--	2000	3
NOV 14...	0930	--	--	--	--	--	--	--	--	--	1900	--
DEC 12...	1000	--	--	--	--	--	--	--	--	--	2000	--
JAN 16...	0930	3200	3200	10	7	2	5	0	0	0	1400	2
FEB 07...	1620	--	--	--	--	--	--	--	--	--	1800	--
MAR 13...	1500	15000	15000	0	8	3	5	0	0	0	--	0
APR 17...	1500	--	--	--	--	--	--	--	--	--	2000	--
MAY 12...	1000	--	--	--	--	--	--	--	--	--	1100	--
JUN 13...	0940	1900	--	--	6	--	--	0	--	--	2700	0
JUL 14...	1000	--	--	--	--	--	--	--	--	--	3100	--
AUG 11...	0930	--	--	--	--	--	--	--	--	--	1700	--
SEP 12...	0920	--	--	--	--	--	--	--	--	--	2300	--

DATE	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
OCT 17...	--	--	10	--	--	7	--	--	5000	--	--	1
NOV 14...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 12...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 16...	1	1	10	10	0	11	11	0	5800	5800	0	10
FEB 07...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 13...	0	3	20	10	10	29	28	1	27000	27000	120	23
APR 17...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	10	--	--	11	--	--	5500	--	--	34
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 12...	--	--	--	--	--	--	--	--	--	--	--	--

06313400 SALT CREEK NEAR SUSSEX, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM SUS-PENDED RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)
OCT 17...	--	--	340	--	--	100	--	--	.0	--	--	0
NOV 14...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 12...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 16...	8	2	230	0	250	270	90	180	.1	.0	.2	1
FEB 07...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 13...	23	0	320	30	290	760	490	270	.1	.1	.0	1
APR 17...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	350	--	--	130	--	--	.8	--	--	3
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 12...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MOLYB-DENUM, SUS-PENDED RECOV. (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 17...	--	--	5	--	--	0	--	--	--	30	--	--
NOV 14...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 12...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 16...	0	1	10	6	4	1	0	1	11	60	20	40
FEB 07...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 13...	0	2	45	40	5	1	1	0	15	180	170	10
APR 17...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 12...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	9	--	--	1	--	--	--	500	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 12...	--	--	--	--	--	--	--	--	--	--	--	--

06313400 SALT CREEK NEAR SUSSEX, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
NOV 14...	0930	<68	8.7	<35	5.0	<33	5.1	.16	3.6	<46	5.9
MAR 13...	1500	<64	58	<34	31	<34	32	.18	4.9	<44	39

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM
OCT 25...	0945	8.0	30	628	51	--	--	--	--	--	--
NOV 29...	1530	.0	18	337	16	--	--	--	--	--	--
DEC 28...	1510	.0	39	462	49	--	--	--	--	--	--
FEB 07...	1620	.0	40	572	62	--	--	--	--	--	--
21...	1100	1.0	650	9260	16300	46	72	91	98	100	--
MAR 13...	1500	5.5	54	1540	225	27	45	79	94	100	2
APR 17...	1500	18.5	37	795	79	--	--	--	--	--	2
MAY 12...	1000	4.5	103	5030	1400	24	41	78	95	100	--
JUN 13...	0940	18.5	24	713	46	--	--	--	--	--	--
JUL 14...	1000	18.0	18	1080	52	--	--	--	--	--	--
SEP 12...	0920	14.5	27	662	48	--	--	--	--	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
OCT 25...	--	--	--	--	--	--	--	--	--	--
NOV 29...	--	--	--	--	--	--	--	--	--	--
DEC 28...	--	--	--	--	--	--	--	--	--	--
FEB 07...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
MAR 13...	8	40	57	63	70	80	88	93	100	--
APR 17...	13	38	48	52	57	67	80	94	99	100
MAY 12...	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--
SEP 12...	--	--	--	--	--	--	--	--	--	--

06313400 SALT CREEK NEAR SUSSEX, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

BENTHIC INVERTEBRATE ANALYSES

DATE	AUG 20,80
TIME	1430
TOTAL COUNT	7
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	0.0
...FAMILY	0.0
....GENUS	0.0
....GENUS-INSECTA	0.0

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	
....CRICOTOPUS	7

06313500 POWDER RIVER AT SUSSEX, WY

LOCATION.--Lat 43°41'54", long 106°17'50", in NE¼SE¼NW¼ sec.13, T.43 N., R.79 W., Johnson County, Hydrologic Unit 10090202, on left bank, 10 ft (3.0 m) downstream from bridge on State Highway 192, 0.2 mi (0.3 km) west of Sussex, and 3.2 mi (5.1 km) downstream from Salt Creek.

DRAINAGE AREA.--3,090 mi^2 (8,000 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1938 to June 1940, February 1950 to September 1957, October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,362.95 ft (1,329.827 m), National Geodetic Vertical Datum of 1929. Prior to June 30, 1940, nonrecording gage about 500 ft (152 m) downstream at datum 0.28 ft (0.085 m) higher. Feb. 8, 1950, to Sept. 30, 1957, water-stage recorder about 600 ft (183 m) downstream at datum 0.79 ft (0.241 m) lower.

REMARKS.--Records poor. Numerous small reservoirs and diversions for irrigation of about 17,000 acres (68.8 km^2) above station.

AVERAGE DISCHARGE.--11 years (water years 1939, 1951-57, 1978-80), 187 ft^3/s (5.296 m^3/s), 135,500 acre-ft/yr (167 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft^3/s (920 m^3/s) May 23, 1952, gage height, 12.6 ft (3.84 m), from floodmarks, site and datum then in use, from rating curve extended above 1,500 ft^3/s (42.5 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 1.5 ft^3/s (0.042 m^3/s) Aug. 25, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 30, 1923, reached a stage of 12.8 ft (3.60 m) present datum, at site about 600 ft (183 m) downstream, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s (56.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 21	1500	--	--	a*8.18	2.493	May 25	1200	*5,760	163	7.24	2.207

a-backwater from ice.

Minimum daily discharge, 11 ft^3/s (0.31 m^3/s) Aug. 28, 29, Sept. 8.

REVISIONS.--The maximum discharge for the water year 1979 has been reivsed to 1,040 ft^3/s (29.5 m^3/s) May 17, 1979, gage height, 4.38 ft (1.335 m), superseding figure published in the report for 1979.

Revised daily discharges, monthly and yearly figures, in cubic feet per second, for the 1979 water year are given below.

Mar. 6	308	Mar. 10	585	Mar. 14	731	Mar. 18	858
7	505	11	521	15	738	19	601
8	680	12	569	16	874		
9	712	13	748	17	933		

March 1979	TOTAL 16,462	MEAN 531	MAX 933	MIN 280	AC-FT 32,650
WTR YR 1979	TOTAL 78,887	MEAN 216	MAX 933	MIN 24	AC-FT 156,500

06313500 POWDER RIVER AT SUSSEX, WY--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	143	115	105	130	180	198	225	538	22	22	134
2	59	134	150	110	140	143	198	298	582	27	17	72
3	62	158	200	115	145	153	198	263	327	34	15	45
4	86	163	250	120	155	140	188	217	220	24	14	32
5	79	163	210	120	160	110	188	224	119	21	14	21
6	86	169	179	110	165	101	199	218	177	21	14	16
7	92	174	145	95	165	117	211	187	210	19	14	14
8	92	186	120	80	160	169	199	149	204	19	16	11
9	103	174	110	70	145	186	217	102	172	21	18	15
10	98	174	100	84	145	169	229	113	154	19	19	16
11	94	198	90	90	140	192	204	246	102	19	19	16
12	84	163	85	105	145	217	163	413	58	18	17	19
13	84	180	80	120	150	192	143	705	58	27	16	19
14	78	186	75	135	150	198	134	498	50	21	14	24
15	78	198	70	150	137	286	134	401	240	24	912	16
16	121	180	65	150	131	260	139	249	515	27	1170	26
17	158	198	85	140	138	241	139	141	242	18	573	30
18	153	204	110	130	172	198	134	122	124	21	241	32
19	134	204	140	115	382	198	139	109	75	27	117	32
20	121	148	145	110	1440	197	158	117	50	21	60	28
21	130	148	140	100	1440	157	195	105	50	18	42	26
22	130	30	130	105	1030	169	238	84	85	22	34	42
23	121	25	130	115	610	165	261	57	53	156	24	55
24	121	40	120	125	443	151	345	39	28	44	19	60
25	125	150	120	140	351	160	218	2520	22	44	14	63
26	113	120	115	115	311	163	240	986	21	39	19	57
27	113	85	110	95	347	157	219	457	22	36	21	61
28	109	70	110	80	360	162	200	260	21	32	11	61
29	139	80	105	90	318	183	190	109	21	24	11	63
30	158	95	100	100	---	169	213	248	22	19	19	68
31	158	---	100	110	---	174	---	302	---	21	81	---
TOTAL	3335	4340	3804	3429	9705	5457	5831	10164	4562	905	3597	1174
MEAN	108	145	123	111	335	176	194	328	152	29.2	116	39.1
MAX	158	204	250	150	1440	286	345	2520	582	156	1170	134
MIN	56	25	65	70	130	101	134	39	21	18	11	11
AC-FT	6610	8610	7550	6800	19250	10820	11570	20160	9050	1800	7130	2330

CAL YR 1979 TOTAL 82697 MEAN 227 MAX 1570 MIN 24 AC-FT 164000
WTR YR 1980 TOTAL 56303 MEAN 154 MAX 2520 MIN 11 AC-FT 111700

06313500 POWDER RIVER AT SUSSEX, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-53, 1967-68, 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 10...	1000	99	2950	8.3	8.0	10.0	99	260	84	460	120	100
NOV 07...	1030	177	2490	8.3	2.5	12.5	106	K26	61	560	220	130
DEC 06...	1030	179	2220	8.2	.0	11.8	98	K20	1700	460	180	110
JAN 10...	1300	84	3870	7.9	.0	5.7	48	40	180	1200	720	210
FEB 14...	1500	150	2690	7.9	.0	7.1	57	20	46	470	130	110
MAR 18...	1045	196	2490	8.2	2.5	10.6	91	K16	240	560	270	140
APR 10...	1215	233	3125	8.1	9.0	9.7	97	K220	K300	610	260	140
MAY 14...	1125	504	2820	8.1	11.0	7.8	89	4900	K1700	630	470	150
JUN 19...	1315	89	4500	8.2	24.0	7.2	100	K800	420	670	270	160
JUL 16...	1235	35	6250	8.4	23.0	9.0	120	K110	K65	410	0	75
AUG 20...	1045	65	4200	8.1	16.0	8.3	98	K1300	1600	590	110	150
SEP 02...	1030	71	3980	8.3	15.0	7.9	--	--	--	510	120	120
25...	1050	57	4000	8.3	10.5	9.4	100	180	140	490	63	110

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT 10...	49	450	9.2	8.7	420	0	350	620	330	.9	11	1800
NOV 07...	56	370	6.8	7.4	410	0	340	580	270	.7	11	1570
DEC 06...	46	330	6.7	6.5	340	0	280	490	260	.7	11	1470
JAN 10...	160	750	9.5	23	590	0	480	2300	21	.8	17	3850
FEB 14...	48	390	7.8	6.9	420	0	350	550	350	1.0	16	1710
MAR 18...	53	350	6.4	6.6	350	0	290	750	230	.7	10	1700
APR 10...	63	550	9.7	8.6	420	0	340	890	340	.9	11	2270
MAY 14...	63	460	8.0	9.1	650	0	530	1300	120	.8	8.3	2180
JUN 19...	65	780	13	12	490	0	400	1100	570	1.4	14	3040
JUL 16...	53	1300	28	19	730	10	610	1000	1200	1.1	4.8	4020
AUG 20...	53	900	16	14	580	0	480	1000	750	1.5	10	2980
SEP 02...	50	640	12	10	--	--	390	700	630	1.2	9.4	--
25...	52	740	15	12	520	0	430	660	740	1.3	15	2590

06313500 POWDER RIVER AT SUSSEX, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT												
10...	1780	2.42	476	.04	--	.040	.05	.92	.96	1.0	4.4	.220
NOV												
07...	1630	2.22	779	.25	.00	.060	.07	.73	.79	1.0	4.6	.180
DEC												
06...	1420	1.93	686	.48	.43	.080	.10	.82	.90	1.4	6.1	.070
JAN												
10...	3770	5.13	855	.05	.03	.040	.05	.81	.85	.90	4.0	.010
FEB												
14...	1680	2.28	680	.43	.43	.200	.24	.50	.70	1.1	5.0	.060
MAR												
18...	1720	2.34	910	.56	.55	.060	.07	1.7	1.8	2.4	10	.630
APR												
10...	2210	3.01	1390	.35	.40	.120	.15	1.9	2.0	2.4	10	.690
MAY												
14...	2440	3.32	3320	.90	1.0	.140	.17	14	14	15	66	5.100
JUN												
19...	2950	4.01	709	.41	.34	.440	.53	1.5	1.9	2.3	10	.590
JUL												
16...	4030	5.48	381	.06	.03	.080	.10	1.3	1.4	1.5	6.5	.340
AUG												
20...	3170	4.31	556	.32	.31	.090	.11	2.7	2.8	3.1	14	.520
SEP												
02...	2400	3.26	460	--	.19	--	--	--	--	--	--	.700
25...	2590	3.52	399	.00	.00	.010	.01	.78	.79	.79	3.5	.010

DATE	PHOS-PHORUS, TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)
OCT												
10...	.67	.000	6.4	1.2	--	--	940	42.3	43.5	444	2.70	.030
NOV												
07...	.55	.040	23	.3	--	--	1300	.240	.240	--	.000	.000
DEC												
06...	.21	.010	14	1.0	.00	10	620	--	--	--	--	--
JAN												
10...	.03	.010	11	.5	--	0	4600	--	--	--	--	--
FEB												
14...	.18	.010	14	.5	--	13	1000	--	--	--	--	--
MAR												
18...	1.9	.020	7.1	1.5	.00	5	860	--	--	--	--	--
APR												
10...	2.1	.020	15	6.5	--	7	4700	--	--	--	--	--
MAY												
14...	16	.010	6.0	12	--	5	4200	--	--	--	--	--
JUN												
19...	1.8	.020	20	--	--	4	1500	--	--	--	--	--
JUL												
16...	1.0	.020	10	1.5	--	3	880	--	--	--	--	--
AUG												
20...	1.6	.010	10	2.9	--	2	2300	.394	.630	--	.000	.000
SEP												
02...	2.1	--	--	--	--	--	--	--	--	--	--	--
25...	.03	.010	11	.9	--	32	2300	33.7	35.7	277	7.21	.390

06313500 POWDER RIVER AT SUSSEX, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BARIUM, RECOV. FM BOTTOM MATERIAL (UG/G AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)
OCT 10...	1000	30	2	1	1	10	200	--	40	46	0
NOV 07...	1030	--	--	--	--	--	--	--	--	--	--
DEC 06...	1030	--	--	--	--	--	--	--	--	--	--
JAN 10...	1300	--	--	--	--	--	--	--	--	--	--
FEB 14...	1500	--	--	--	--	--	--	--	--	--	--
MAR 18...	1045	70	5	4	1	6	400	400	40	130	0
APR 10...	1215	--	--	--	--	--	--	--	--	--	--
MAY 14...	1125	--	--	--	--	--	--	--	--	--	--
JUN 19...	1315	--	--	--	--	--	--	--	--	--	--
JUL 16...	1235	--	--	--	--	--	--	--	--	--	--
AUG 20...	1045	--	--	--	--	--	--	--	--	--	--
SEP 25...	1050	--	--	--	--	--	--	--	--	--	--

DATE	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BERYLLIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)
OCT 10...	--	<1	0	660	5	--	18	0	10	0	10
NOV 07...	--	--	--	480	--	--	--	--	--	--	--
DEC 06...	--	--	--	430	--	--	--	--	--	--	--
JAN 10...	--	--	--	260	--	--	--	--	--	--	--
FEB 14...	--	--	--	550	--	--	--	--	--	--	--
MAR 18...	0	<3	1	380	0	0	<3	0	30	30	0
APR 10...	--	--	--	590	--	--	--	--	--	--	--
MAY 14...	--	--	--	350	--	--	--	--	--	--	--
JUN 19...	--	--	--	1000	--	--	--	--	--	--	--
JUL 16...	--	--	--	1900	--	--	--	--	--	--	--
AUG 20...	--	--	--	1200	--	--	--	--	--	--	--
SEP 25...	--	--	--	890	--	--	--	--	--	--	--

06313500 POWDER RIVER AT SUSSEX, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
OCT											
10...	3	3	--	<3	10	11	--	<10	2	20	54
NOV											
07...	--	--	--	--	--	--	--	--	--	30	--
DEC											
06...	--	--	--	--	--	--	--	--	--	20	--
JAN											
10...	--	--	--	--	--	--	--	--	--	30	--
FEB											
14...	--	--	--	--	--	--	--	--	--	20	--
MAR											
18...	2	11	3	<8	10	33	8	<25	5	33	22
APR											
10...	--	--	--	--	--	--	--	--	--	20	--
MAY											
14...	--	--	--	--	--	--	--	--	--	30	--
JUN											
19...	--	--	--	--	--	--	--	--	--	40	--
JUL											
16...	--	--	--	--	--	--	--	--	--	30	--
AUG											
20...	--	--	--	--	--	--	--	35	--	60	--
SEP											
25...	--	--	--	--	--	--	--	36	--	30	--

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
OCT											
10...	0	66	0	140	--	130	210	--	31	440	.1
NOV											
07...	--	--	--	--	--	--	--	--	--	--	--
DEC											
06...	--	--	--	--	--	--	--	--	--	--	--
JAN											
10...	--	--	--	--	--	--	--	--	--	--	--
FEB											
14...	--	--	--	--	--	--	--	--	--	--	--
MAR											
18...	22	0	0	120	10	110	590	550	38	260	.0
APR											
10...	--	--	--	--	--	--	--	--	--	--	--
MAY											
14...	--	--	--	--	--	--	--	--	--	--	--
JUN											
19...	--	--	--	--	--	--	--	--	--	--	--
JUL											
16...	--	--	--	--	--	--	--	--	--	--	--
AUG											
20...	--	--	--	--	--	--	--	--	--	--	--
SEP											
25...	--	--	--	--	--	--	--	--	--	--	--

YELLOWSTONE RIVER BASIN

06313500 POWDER RIVER AT SUSSEX, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, SUS-PENDED RECOV. (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	MOLYB-DENUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)
OCT 10...	.1	.0	.01	1	1	0	1	7	0	8	10
NOV 07...	--	--	--	--	--	--	--	--	--	--	--
DEC 06...	--	--	--	--	--	--	--	--	--	--	--
JAN 10...	--	--	--	--	--	--	--	--	--	--	--
FEB 14...	--	--	--	--	--	--	--	--	--	--	--
MAR 18...	.0	.3	.01	0	0	<25	0	30	30	0	10
APR 10...	--	--	--	--	--	--	--	--	--	--	--
MAY 14...	--	--	--	--	--	--	--	--	--	--	--
JUN 19...	--	--	--	--	--	--	--	--	--	--	--
JUL 16...	--	--	--	--	--	--	--	--	--	--	--
AUG 20...	--	--	--	--	--	--	--	--	--	--	--
SEP 25...	--	--	--	--	--	--	--	--	--	--	--

DATE	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
OCT 10...	2	1	1	0	1900	<6.0	30	--	<3	23
NOV 07...	--	--	--	--	--	--	--	--	--	--
DEC 06...	--	--	--	--	--	--	--	--	--	--
JAN 10...	--	--	--	--	--	--	--	--	--	--
FEB 14...	--	--	--	--	--	--	--	--	--	--
MAR 18...	5	1	4	0	1900	9.0	170	150	19	21
APR 10...	--	--	--	--	--	--	--	--	--	--
MAY 14...	--	--	--	--	--	--	--	--	--	--
JUN 19...	--	--	--	--	--	--	--	--	--	--
JUL 16...	--	--	--	--	--	--	--	--	--	--
AUG 20...	--	--	--	--	--	--	--	--	--	--
SEP 25...	--	--	--	--	--	--	--	--	--	--

06313500 POWDER RIVER AT SUSSEX, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT 10...	1000	<37	<4.4	<14	9.3	<14	9.6	<25	<3.0
MAR 18...	1045	<31	40	<13	25	<13	26	<21	27

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	NUMBER OF SAM-PLING POINTS
OCT 10...	1000	8.0	99	561	150	--	--	--	--	--	8
NOV 07...	1030	2.5	177	700	335	--	--	--	--	--	--
DEC 06...	1030	.0	179	602	291	--	--	--	--	--	--
JAN 10...	1300	.0	84	312	71	--	--	--	--	--	--
FEB 14...	1500	.0	150	138	56	--	--	--	--	--	--
29...	1135	--	--	--	--	44	64	82	92	100	--
MAR 18...	1045	2.5	196	--	--	43	61	80	93	100	--
APR 10...	1215	9.0	233	1810	1140	--	--	--	--	--	--
30...	1040	16.0	233	1410	887	39	54	73	88	100	--
MAY 14...	1125	11.0	504	--	--	53	81	93	99	100	--
JUN 19...	1315	24.0	89	1200	288	--	--	--	--	--	--
AUG 16...	1235	--	--	686	--	--	--	--	--	--	--
20...	1045	16.0	65	1840	323	--	--	--	--	--	--
SEP 25...	1050	10.5	57	436	67	--	--	--	--	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
OCT 10...	1	2	51	90	93	96	99	100	--	--
NOV 07...	--	--	--	--	--	--	--	--	--	--
DEC 06...	--	--	--	--	--	--	--	--	--	--
JAN 10...	--	--	--	--	--	--	--	--	--	--
FEB 14...	--	--	--	--	--	--	--	--	--	--
29...	18	59	85	89	90	91	94	100	--	--
MAR 18...	2	9	40	51	56	65	79	92	98	100
APR 10...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
MAY 14...	--	--	--	--	--	--	--	--	--	--
JUN 19...	--	--	--	--	--	--	--	--	--	--
AUG 16...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
SEP 25...	--	--	--	--	--	--	--	--	--	--

06313500 POWDER RIVER AT SUSSEX, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	OCT 10,79	NOV 7,79	DEC 6,79	FEB 14,80	MAR 18,80	APR 10,80
TIME	1000	1030	1030	1500	1045	1215
TOTAL CELLS/ML	940	1300	620	1000	860	4700
DIVERSITY: DIVISION	0.8	1.2	1.6	0.3	0.9	1.0
.CLASS	0.8	1.2	1.6	0.3	0.9	1.0
..ORDER	0.8	1.2	1.6	0.3	0.9	1.0
...FAMILY	1.0	2.4	2.2	0.3	1.3	1.5
....GENUS	1.0	2.5	2.3	0.8	1.3	1.6

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHARACIACEAE												
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-	--	-
...COELASTRACEAE												
....COELASTRUM	--	-	--	-	--	-	--	-	570#	67	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE												
....ACTINASTRUM	--	-	430#	32	110#	19	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	--	-	69	1
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	--	-	--	-	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	170	13	--	-	--	-	--	-	--	-
...CYMBELLACEAE												
....CYMBELLA	--	-	43	3	--	-	--	-	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-	--	-	--	-	--	-
....RHOPALODIA	5	1	14	1	--	-	--	-	--	-	--	-
...DIATOMACEAE												
....DIATOMA	5	1	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE												
....SYNEDRA	5	1	--	-	--	-	--	-	--	-	--	-
...GOMPHONEMATACEAE												
....GOMPHONEMA	--	-	43	3	43	7	--	-	--	-	280	6
...NAVICULACEAE												
....AMPHIPLEURA	--	-	--	-	14	2	--	-	--	-	--	-
....ENTOMONEIS	--	-	14	1	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	14	1	--	-	--	-
....NAVICULA	61	6	370#	28	160#	26	14	1	140#	17	480	10
....NEIDIUM	--	-	--	-	--	-	--	-	--	-	69	1
...NITZSCHIACEAE												
....HANTZSCHIA	--	-	--	-	--	-	--	-	--	-	--	-
....NITZSCHIA	66	7	190	14	57	9	--	-	--	-	350	7
...SURIRELLACEAE												
....CYMATOPLEURA	--	-	--	-	--	-	--	-	--	-	69	1
....SURIRELLA	--	-	--	-	--	-	14	1	140#	17	140	3
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....AGMENELLUM	--	-	--	-	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	57	4	--	-	--	-	--	-	--	-
..HORMOGONALES												
...OSCILLATORIACEAE												
....LYNGBYA	--	-	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIA	780#	82	--	-	220#	35	860#	85	--	-	3300#	69
....PHORMIDIUM	--	-	--	-	--	-	110	11	--	-	--	-
....SPIRULINA	--	-	14	1	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	25	3	--	-	14	2	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06313500 POWDER RIVER AT SUSSEX, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	MAY 14,80	JUN 19,80	JUL 16,80	AUG 20,80	SEP 25,80
TIME	1125	1315	1235	1045	1050
TOTAL CELLS/ML	4200	1500	880	2300	2300
DIVERSITY: DIVISION	0.6	1.6	1.2	1.0	1.3
.CLASS	0.6	1.6	1.2	1.0	1.3
..ORDER	0.6	1.8	1.3	1.0	1.6
...FAMILY	0.8	2.2	1.9	1.5	1.8
....GENUS	1.7	2.2	1.9	1.7	1.8

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	--	-	13	1
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	290#	19	--	-	--	-	660#	29
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	26	3	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	140	10	--	-	--	-	52	2
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	--	-	26	3	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	72	5	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	160	4	--	-	--	-	--	-	--	-
....EPITHEMIA	55	1	--	-	--	-	--	-	--	-
....RHOPALODIA	--	-	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	55	1	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....SYNEDRA	--	-	--	-	13	1	--	-	13	1
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....AMPHIPLEURA	--	-	--	-	--	-	--	-	--	-
....ENTOMONEIS	--	-	--	-	--	-	--	-	--	-
....GYROSIGMA	110	3	--	-	13	1	--	-	--	-
....NAVICULA	220	5	72	5	230#	26	280	12	77	3
....NEIDIUM	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....HANTZSCHIA	--	-	--	-	--	-	140	6	--	-
....NITZSCHIA	--	-	500#	33	150#	18	410#	18	130	6
...SURIRELLACEAE										
....CYMATOPLEURA	--	-	--	-	--	-	--	-	--	-
....SURIRELLA	--	-	--	-	--	-	140	6	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....AGMENELLUM	--	-	--	-	--	-	--	-	52	2
....ANACYSTIS	--	-	430#	29	--	-	--	-	--	-
..HORMOGONALES										
...OSCILLATORIACEAE										
....LYNGBYA	2200#	53	--	-	--	-	--	-	--	-
....OSCILLATORIA	1400#	33	--	-	410#	47	1400#	59	1300#	56
....PHORMIDIUM	--	-	--	-	--	-	--	-	--	-
....SPIRULINA	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	13	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

YELLOWSTONE RIVER BASIN

06313500 POWDER RIVER AT SUSSEX, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	JAN 10, 80	
TIME	1300	
TOTAL CELLS/ML	4,600	
DIVERSITY: DIVISION	0.3	
ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)	28	1
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....ANKISTRODESMUS	14	0
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	14	0
..PENNALES		
...CYMBELLACEAE		
....AMPHORA	14	0
....CYMBELLA	14	0
...DIATOMACEAE		
....DIATOMA	14	0
...NAVICULACEAE		
....NAVICULA	55	1
...NITZSCHIACEAE		
....NITZSCHIA	28	1
CYANOPHYTA (BLUE-GREEN ALGAE)		
.CYANOPHYCEAE		
..HORMOGONALES		
...OSCILLATORIACEAE		
....LYNGBYA	2,900#	64
....OSCILLATORIA	1,500#	32
....SPIRULINA	14	0

NOTE: # - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%

06313700 DEAD HORSE CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°12'54", long 106°06'41", in NW¼SE¼SW¼ sec.15, T.49 N., R.77 W., Johnson County, Hydrologic Unit 10090202, on left bank 30 ft (9 m) upstream from bridge on dirt road, 0.8 mi (1.3 km) upstream from Interstate Highway 90, 5.3 mi (8.5 km) upstream from mouth, and 31 mi (50 km) east of Buffalo.

DRAINAGE AREA.--151 mi² (391 km²).

PERIOD OF RECORD.--Annual maximum, water years 1958-71. October 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,970 ft (1,210 m), from topographic map. Oct. 1, 1958, to Sept. 30, 1971, crest-stage gage at present site and datum. Nov. 24, 1971, to July 15, 1976, water-stage recorder at site 0.3 mi (0.5 km) upstream at different datum.

REMARKS.--Records poor. No gage-height record Nov. 23 to Dec. 15, Feb. 1-25, Feb. 27 to May 5, July 2-14.

AVERAGE DISCHARGE.--9 years, 3.11 ft³/s (0.088 m³/s), 2,250 acre-ft/yr (2.77 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,890 ft³/s (81.8 m³/s) June 16, 1979, gage height, 11.73 ft (3.575 m), from floodmarks, from rating curve extended above 1,150 ft³/s (32.6 m³/s) on basis of contracted-opening and flow-over-road measurement of peak flow, present site and datum; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	(m³/s)	Gage height (ft)	(m)
June 19	1930	*7,500	42.5	a10.30	3.139
Aug. 15	0130	440	12.5	6.45	1.966

a-from floodmark.

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.12	.00	.00	.01	.10	.30	.10	2.5	.00	.00	.01
2	.06	.12	.01	.00	.01	.20	.30	.10	.08	.01	.00	.01
3	.06	.12	.02	.00	.02	.10	.20	.10	.06	.01	.00	.01
4	.06	.15	.02	.00	.02	.10	.10	.10	.00	.01	.00	.00
5	.06	.15	.04	.00	.01	.10	.10	.10	.02	.01	.00	.00
6	.06	.12	.02	.00	.01	.10	.10	.12	.04	.01	.00	.00
7	.06	.10	.01	.00	.01	.10	.10	.15	.08	.01	.00	.00
8	.08	.12	.01	.00	.01	.15	.10	.04	.00	.01	.00	.00
9	.08	.12	.02	.00	.02	.20	.10	.06	.06	.01	.00	.00
10	.10	.12	.01	.00	.01	.20	.10	.21	.06	.01	.00	.00
11	.10	.12	.01	.00	.01	.20	.10	.18	.08	.01	.00	.00
12	.10	.12	.01	.00	.02	.20	.10	.12	.10	.01	.00	8.0
13	.08	.12	.01	.00	.01	.20	.10	.08	.15	.01	.00	.41
14	.08	.10	.02	.00	.01	.30	.10	.10	.10	.01	8.1	.00
15	.08	.10	.01	.00	.01	.30	.10	.08	.12	.01	92	.00
16	.15	.12	.00	.00	.01	.20	.10	.06	.04	.00	11	.01
17	.12	.12	.00	.00	.02	.20	.10	.06	.04	.00	.85	.00
18	.12	.12	.00	.00	.10	.30	.10	.06	.02	.00	.02	.00
19	.15	.12	.00	.00	25	.20	.10	.06	100	.00	.02	.01
20	.15	.12	.00	.00	50	.20	.10	.08	90	.00	.06	.00
21	.18	.12	.00	.00	30	.20	.10	.06	1.2	.00	1.2	.00
22	.15	.10	.00	.00	15	.20	.10	.04	.07	.00	.27	.00
23	.12	.10	.00	.00	5.0	.20	.10	.02	.00	.00	.01	.00
24	.12	.10	.00	.00	2.0	.20	.10	.06	.00	.00	.01	.04
25	.12	.10	.00	.00	1.0	.30	.10	.24	.00	.00	.01	.01
26	.15	.08	.00	.00	.80	.20	.10	.02	.00	.00	.01	.00
27	.12	.06	.00	.00	.30	.20	.10	.06	.00	.00	.01	.00
28	.12	.04	.00	.00	.20	.20	.10	.02	.00	.00	.01	.00
29	.24	.02	.00	.00	.10	.20	.10	.04	.00	.00	.01	.00
30	.18	.00	.00	.00	---	.50	.10	.10	.00	.00	.35	.00
31	.15	---	.00	.00	---	.40	---	.04	---	.00	.24	---
TOTAL	3.44	3.12	.22	.00	129.72	6.45	3.50	2.66	194.82	.14	114.18	8.51
MEAN	.11	.10	.007	.000	4.47	.21	.12	.086	6.49	.005	3.68	.28
MAX	.24	.15	.04	.00	50	.50	.30	.24	100	.01	92	8.0
MIN	.04	.00	.00	.00	.01	.10	.10	.02	.00	.00	.00	.00
AC-FT	6.8	6.2	.4	.00	257	13	6.9	5.3	386	.3	226	17

CAL YR 1979 TOTAL 1753.90 MEAN 4.81 MAX 755 MIN .00 AC-FT 3480
WTR YR 1980 TOTAL 466.76 MEAN 1.28 MAX 100 MIN .00 AC-FT 926

06313950 NORTH FORK CRAZY WOMAN CREEK BELOW POLE CREEK, NEAR BUFFALO, WY

LOCATION.--Lat 44°11'11", long 106°51'12", in NW¼NE¼SW¼ sec.28, T.49 N., R.83 W., Johnson County, Hydrologic Unit 10090205, Bighorn National Forest, on right bank 8 ft (2 m) upstream from bridge, 0.7 mi (1.1 km) upstream from forest boundary, 3.4 mi (5.5 km) downstream from Pole Creek, and 13 mi (21 km) southwest of Buffalo.

DRAINAGE AREA.--43.4 mi² (112.4 km²).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,280 ft (1,914 m), from topographic map.

REMARKS.--Records fair. No diversion above station.

AVERAGE DISCHARGE.--7 years, 25.6 ft³/s (0.725 m³/s), 18,550 acre-ft/yr (22.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 536 ft³/s (15.2 m³/s) May 24, 1978, gage height, 4.65 ft (1.417 m); minimum daily, 1.2 ft³/s (0.034 m³/s) Jan. 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 160 ft³/s (4.53 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	(m³/s)	Gage height (ft)	(m)
May 25	0500	*239	6.77	3.78	1.152

Minimum daily discharge, 4.3 ft³/s (0.12 m³/s) Mar. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	7.6	6.1	5.4	4.8	4.4	5.0	52	112	38	12	13
2	10	8.2	6.1	5.4	4.8	4.3	5.2	43	107	39	13	11
3	11	9.0	6.8	5.4	4.8	4.3	5.0	43	105	34	12	9.5
4	11	10	7.1	5.4	4.8	4.4	5.2	57	112	31	12	8.7
5	11	12	7.4	5.4	5.0	4.5	5.2	73	116	27	11	7.7
6	11	10	7.4	5.4	5.0	4.6	5.3	58	114	26	10	7.4
7	10	9.5	7.1	5.2	5.0	4.6	5.4	56	102	24	9.5	7.1
8	10	9.5	7.1	4.8	5.0	4.5	5.3	56	93	24	9.5	7.4
9	11	9.5	7.1	4.6	4.8	4.5	5.2	60	96	24	11	7.7
10	13	9.1	7.4	4.6	4.8	4.5	5.8	94	100	22	9.9	8.0
11	12	9.1	7.4	4.8	5.0	4.5	5.5	63	109	20	9.5	7.7
12	11	8.3	7.3	4.8	5.0	4.6	5.8	54	105	19	8.7	8.3
13	11	8.3	7.2	5.0	5.0	4.5	6.0	73	86	20	9.1	9.9
14	11	8.3	7.2	5.0	5.0	4.5	6.1	63	80	19	10	11
15	10	8.0	7.2	5.0	5.0	4.6	9.1	61	98	19	20	8.3
16	15	8.0	7.2	5.0	5.0	4.6	9.9	68	84	18	26	9.9
17	18	8.0	7.2	5.0	5.0	4.6	12	79	76	18	19	13
18	14	8.3	7.2	5.0	4.8	4.6	16	84	71	18	12	9.5
19	14	8.7	7.2	5.0	4.8	4.6	25	87	65	20	11	11
20	14	8.7	7.2	5.0	4.8	4.6	58	86	62	25	13	12
21	13	8.7	7.1	5.0	4.8	4.6	84	107	65	22	12	9.1
22	11	8.7	7.0	5.0	4.6	4.6	88	146	58	18	11	8.7
23	14	8.7	6.5	5.0	4.5	4.6	66	156	52	16	9.1	8.7
24	14	8.7	6.4	5.0	4.5	4.6	65	130	48	15	8.7	9.1
25	13	8.7	6.4	5.0	4.5	4.6	70	176	46	16	8.0	9.9
26	12	8.3	6.2	5.0	4.5	4.6	51	116	43	18	8.7	9.1
27	11	7.4	6.0	5.0	4.5	4.6	36	112	39	15	9.5	9.1
28	10	5.8	5.8	5.0	4.5	4.6	37	117	36	13	8.3	8.7
29	11	5.8	5.8	5.0	4.5	4.8	44	123	35	12	8.0	8.3
30	8.7	5.8	5.6	5.0	---	5.0	49	142	36	12	8.0	8.3
31	7.4	---	5.4	5.0	---	5.0	---	121	---	12	12	---
TOTAL	363.1	254.7	210.1	156.2	139.1	141.9	796.0	2756	2351	654	351.5	277.1
MEAN	11.7	8.49	6.78	5.04	4.80	4.58	26.5	88.9	78.4	21.1	11.3	9.24
MAX	18	12	7.4	5.4	5.0	5.0	88	176	116	39	26	13
MIN	7.4	5.8	5.4	4.6	4.5	4.3	5.0	43	35	12	8.0	7.1
AC-FT	720	505	417	310	276	281	1580	5470	4660	1300	697	550

CAL YR 1979 TOTAL 8829.3 MEAN 24.2 MAX 148 MIN 4.0 AC-FT 17510
WTR YR 1980 TOTAL 8450.7 MEAN 23.1 MAX 176 MIN 4.3 AC-FT 16760

06314000 NORTH FORK CRAZY WOMAN CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°11'16", long 106°49'48", in SW¼SW¼NE¼ sec.27, T.49 N., R.83 W., Johnson County, Hydrologic Unit 10090205, on left bank, 70 ft (21 m) upstream from bridge on county road, 2.1 mi (3.4 km) upstream from Spring Draw, and 13 mi (21 km) southwest of Buffalo.

DRAINAGE AREA.--44.9 mi^2 (116.3 km^2).

PERIOD OF RECORD.--April 1942 to September 1949, October 1973 to current year. Prior to October 1944, monthly discharge only published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 5,900 ft (1,798 m), from topographic map. Apr. 1, 1942, to Sept. 23, 1943, nonrecording gage nearby at different datum. Sept. 24, 1943, to Sept. 30, 1949, water-stage recorder at datum 1.33 ft (0.405 m) lower.

REMARKS.--Records good. No diversion above station.

AVERAGE DISCHARGE.--14 years (water years 1943-49, 1974-80), 25.4 ft^3/s (0.719 m^3/s), 18,400 acre-ft/yr (22.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 611 ft^3/s (17.3 m^3/s) June 6, 1949, gage height, 4.23 ft (1.289 m) from rating curve extended above 150 ft^3/s (4.25 m^3/s) on basis of slope-area measurement of peak flow at site 3.2 mi (5.1 km) downstream; minimum daily, 1.7 ft^3/s (0.048 m^3/s) Jan. 17, 18, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 160 ft^3/s (4.53 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 25	0500	*185	5.24	2.69	0.820

Minimum daily discharge, 4.3 ft^3/s (0.12 m^3/s) Jan. 10-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	8.1	7.2	5.4	4.7	4.7	4.7	55	109	39	12	12
2	11	8.7	7.2	5.4	4.7	4.7	4.7	45	106	38	12	11
3	11	10	7.2	5.4	4.7	4.7	4.7	43	104	36	12	9.0
4	11	11	7.5	5.4	4.7	4.7	4.7	58	107	32	12	8.7
5	11	12	7.8	5.4	4.7	4.7	4.7	74	111	29	11	8.1
6	11	10	7.8	5.4	4.7	4.7	5.0	60	107	26	10	7.8
7	11	10	7.5	5.4	4.7	4.7	5.0	57	92	24	10	7.5
8	11	9.8	7.2	4.7	4.7	4.7	5.0	55	88	24	10	7.5
9	12	9.8	7.2	4.5	4.7	4.7	4.7	66	91	24	10	7.5
10	13	9.8	7.2	4.3	4.7	4.7	5.0	91	94	22	10	7.8
11	13	9.4	7.2	4.3	4.7	4.7	5.0	67	106	20	10	7.8
12	12	8.7	7.2	4.3	4.7	4.7	5.0	55	100	19	9.4	8.1
13	12	8.4	7.2	4.5	4.7	4.7	4.7	51	85	20	9.4	8.7
14	12	8.4	7.2	4.7	4.7	4.7	5.4	61	81	19	9.8	9.8
15	11	8.4	7.2	4.7	4.7	4.7	6.9	61	91	18	16	8.4
16	15	8.4	7.2	5.0	4.7	4.7	7.8	69	82	17	23	8.7
17	18	8.4	7.2	5.0	4.7	4.7	9.0	77	79	17	18	11
18	14	8.7	7.2	5.0	4.7	4.7	12	82	70	18	13	9.0
19	14	9.4	7.2	5.0	4.7	4.7	22	85	69	19	11	9.4
20	14	9.4	7.2	5.0	4.7	4.7	60	85	65	24	11	11
21	14	9.4	7.2	5.0	4.7	4.7	84	106	66	21	11	8.7
22	12	9.4	7.2	5.0	4.7	4.7	86	133	61	17	10	8.1
23	14	9.0	6.6	5.0	4.7	4.7	66	144	53	16	9.4	7.8
24	14	9.0	6.6	5.0	4.7	4.7	66	125	49	15	9.0	7.8
25	14	9.0	6.6	5.0	4.7	4.7	66	146	45	15	8.4	8.1
26	13	9.0	6.6	5.0	4.7	4.7	50	114	41	17	9.0	8.1
27	12	8.4	6.0	5.0	4.7	4.7	35	114	39	15	9.8	8.1
28	12	7.5	6.0	5.0	4.7	4.7	36	114	36	13	9.0	8.1
29	12	7.2	5.8	5.0	4.7	4.7	46	116	35	12	8.4	7.5
30	10	7.2	5.6	4.7	---	4.7	49	125	36	12	8.1	7.5
31	7.5	---	5.4	4.7	---	4.7	---	114	---	12	11	---
TOTAL	382.5	271.9	215.4	153.2	136.3	145.7	770.0	2648	2298	650	342.7	258.6
MEAN	12.3	9.06	6.95	4.94	4.70	4.70	25.7	85.4	76.6	21.0	11.1	8.62
MAX	18	12	7.8	5.4	4.7	4.7	86	146	111	39	23	12
MIN	7.5	7.2	5.4	4.3	4.7	4.7	4.7	43	35	12	8.1	7.5
AC-FT	759	539	427	304	270	289	1530	5250	4560	1290	680	513

CAL YR 1979 TOTAL 8361.0 MEAN 22.9 MAX 129 MIN 5.0 AC-FT 16580
WTR YR 1980 TOTAL 8272.3 MEAN 22.6 MAX 146 MIN 4.3 AC-FT 16410

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY

LOCATION.--Lat 44°29'28", long 106°10'38", in NE¼SW¼SW¼ sec.7, T.52 N., R.77 W., Johnson County, Hydrologic Unit 10090205, on left bank 1.1 mi (1.8 km) upstream from Jewell Draw, 5.0 mi (8.0 km) upstream from mouth, and 11 mi (18 km) south of Arvada.

DRAINAGE AREA.--945 mi² (2,448 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1963 to September 1970, October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,765 ft (1,148 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 12,000 acres (48.6 km²) above station.

AVERAGE DISCHARGE.--10 years, 52.9 ft³/s (1.498 m³/s), 38,330 acre-ft/yr (47.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft³/s (447 m³/s) June 15, 1965, gage height, 16.02 ft (4.883 m), from rating curve extended above 1,300 ft³/s (36.8 m³/s) on basis of slope-area measurement of peak flow; no flow Sept. 4-8, 1964, and for many days in 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 16	0500	*584	16.5	6.14	1.871

Minimum daily discharge, 2.9 ft³/s (0.082 m³/s) Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	44	15	26	11	60	44	64	202	27	3.8	14
2	19	41	18	25	10	70	44	54	217	27	3.6	11
3	19	38	20	27	10	70	44	58	214	23	3.3	10
4	18	37	25	31	11	60	43	66	190	21	3.2	11
5	19	36	28	35	11	50	42	66	175	21	3.0	10
6	19	38	32	30	11	45	41	65	164	20	3.0	11
7	21	40	34	26	11	40	41	70	157	20	2.9	8.6
8	21	41	33	21	11	35	42	74	164	19	4.4	8.4
9	23	39	32	17	12	30	36	59	162	16	6.7	9.1
10	24	37	31	14	12	30	27	60	146	14	7.6	9.3
11	24	35	25	13	12	33	22	85	133	14	7.1	8.9
12	25	30	25	13	14	32	20	91	128	12	6.6	9.7
13	28	32	23	14	16	32	19	128	118	11	6.5	9.9
14	30	34	21	15	17	31	24	104	118	9.9	16	10
15	30	31	23	15	18	31	26	82	105	9.1	30	9.1
16	31	35	22	17	20	29	26	74	95	8.6	304	12
17	32	33	28	20	22	31	24	79	97	8.1	119	12
18	34	40	30	25	30	35	22	85	111	7.6	64	12
19	46	40	26	26	40	49	22	86	102	7.6	50	11
20	48	25	29	22	42	60	22	97	79	7.3	47	10
21	44	16	31	21	41	45	38	102	72	7.1	32	8.4
22	44	13	32	25	35	43	160	95	67	6.6	24	8.6
23	44	20	32	35	30	55	247	88	65	6.1	23	8.6
24	44	25	33	46	30	45	243	99	62	5.4	18	8.6
25	42	26	34	55	33	43	208	138	52	5.4	16	8.6
26	45	23	34	53	42	45	159	151	45	5.3	13	8.2
27	45	20	33	50	60	55	148	189	43	8.5	12	8.4
28	42	18	33	41	100	49	130	188	39	6.5	11	8.4
29	46	15	32	27	80	72	104	172	35	5.5	10	8.2
30	44	14	33	18	---	46	80	154	31	4.8	9.9	8.4
31	43	---	30	12	---	48	---	156	---	4.2	12	---
TOTAL	1009	916	877	815	792	1399	2148	3079	3388	368.6	872.6	291.4
MEAN	32.5	30.5	28.3	26.3	27.3	45.1	71.6	99.3	113	11.9	28.1	9.71
MAX	48	44	34	55	100	72	247	189	217	27	304	14
MIN	15	13	15	12	10	29	19	54	31	4.2	2.9	8.2
AC-FT	2000	1820	1740	1620	1570	2770	4260	6110	6720	731	1730	578

CAL YR 1979 TOTAL 18861.5 MEAN 51.7 MAX 307 MIN 5.8 AC-FT 37410
WTR YR 1980 TOTAL 15955.6 MEAN 43.6 MAX 304 MIN 2.9 AC-FT 31650

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 09...	1500	22	1510	8.4	10.0	10.6	107	K22	110	710	500	140
NOV 08...	0950	39	1440	8.2	.5	12.4	100	26	26	570	370	120
DEC 05...	1515	28	1950	8.3	.0	12.8	102	K9	98	850	600	180
JAN 11...	1100	13	2050	7.8	.0	14.0	109	K6	K8	820	560	180
FEB 15...	1250	18	1620	7.7	.0	10.0	77	K1	K6	690	460	150
MAR 20...	1000	47	1400	8.2	.5	11.3	93	K1	87	560	390	120
APR 09...	1115	37	2410	8.3	6.0	12.0	109	K1	K12	630	420	120
MAY 15...	0855	86	993	8.2	12.0	8.8	95	720	640	400	270	82
JUN 18...	1215	108	930	8.3	21.0	8.1	104	480	590	380	240	77
JUL 15...	1630	8.9	2090	8.4	25.0	9.5	128	90	120	890	650	190
AUG 19...	1715	46	1340	8.0	19.0	7.8	91	2400	2200	610	450	150
SEP 05...	1230	10	2150	8.5	17.0	9.8	--	--	--	990	830	250
26...	0920	8.2	1980	8.3	9.5	9.3	93	100	30	930	730	190

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT 09...	86	110	1.8	4.7	220	10	200	690	7.9	.3	3.0	1510
NOV 08...	65	110	2.0	4.2	240	0	200	600	8.3	.2	8.9	1110
DEC 05...	98	140	2.1	16	310	0	260	920	11	.3	10	1650
JAN 11...	90	150	2.3	4.2	320	0	260	920	13	.3	11	1660
FEB 15...	76	120	2.0	3.6	280	0	230	700	8.7	.3	12	1270
MAR 20...	63	110	2.0	3.2	210	0	180	650	7.7	.2	6.9	1120
APR 09...	80	310	5.4	13	260	0	210	910	120	1.0	8.4	1810
MAY 15...	47	74	1.6	4.0	160	0	130	420	6.8	.2	11	759
JUN 18...	45	58	1.3	3.4	170	0	140	340	4.4	.3	12	698
JUL 15...	100	170	2.5	6.1	270	5	230	960	11	1.5	3.5	--
AUG 19...	57	76	1.3	8.5	190	0	160	620	7.6	.3	7.9	983
SEP 05...	89	120	1.7	8.9	--	--	160	1000	11	.3	.3	--
26...	110	150	2.1	7.2	250	0	210	1000	13	.3	2.3	1590

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 09...	1160	1.58	68.9	.07	--	.030	.04	.54	.57	.64	2.8	.000
NOV 08...	1040	1.41	110	.01	.00	.020	.02	.37	.39	.40	1.8	.010
DEC 05...	1530	2.08	117	.02	.02	.030	.04	.90	.93	.95	4.2	.000
JAN 11...	1530	2.08	53.7	.17	.17	.030	.04	.60	.63	.80	3.5	.010
FEB 15...	1210	1.65	59.1	.31	.71	.040	.05	.53	.57	.88	3.9	.020
MAR 20...	1070	1.46	137	.02	.03	.000	.00	.83	.83	.85	3.8	.090
APR 09...	1690	2.30	169	.03	.06	.100	.12	1.2	1.3	1.3	5.9	.130
MAY 15...	724	.98	168	.09	.08	.030	.04	1.6	1.6	1.7	7.5	.360
JUN 18...	624	.85	182	.06	.08	.040	.05	1.2	1.2	1.3	5.6	.250
JUL 15...	1580	2.15	38.0	.05	.04	.060	.07	1.0	1.1	1.2	5.1	.050
AUG 19...	1020	1.39	128	.05	.02	.050	.06	3.9	3.9	4.0	17	.310
SEP 05...	1580	2.15	43.5	--	.18	--	--	--	--	--	--	.000
26...	1600	2.18	35.3	.00	.00	.010	.01	.62	.63	.63	2.8	.010

DATE	PHOS-PHORUS, TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)
OCT 09...	.00	.000	7.7	.5	--	--	1200	.000	.000	--	.000	.000
NOV 08...	.03	.000	13	.1	--	--	270	--	--	--	--	--
DEC 05...	.00	.000	9.5	--	.00	3	1300	--	--	--	--	--
JAN 11...	.03	.010	14	--	--	0	640	--	--	--	--	--
FEB 15...	.06	.010	5.1	.3	--	0	1200	--	--	--	--	--
MAR 20...	.28	.010	7.1	.7	.00	1	480	.000	.000	.00	.040	.000
APR 09...	.40	.050	21	.1	--	0	970	--	--	--	--	--
MAY 15...	1.1	.020	8.2	5.6	--	0	1700	--	--	--	--	--
JUN 18...	.77	.020	11	1.0	--	8	1700	--	--	--	--	--
JUL 15...	.15	.010	11	.3	--	8	480	9.61	10.9	1132	1.14	.170
AUG 19...	.95	.020	15	2.1	--	5	11000	--	--	--	--	--
SEP 05...	.00	--	--	--	--	--	--	--	--	--	--	--
26...	.03	.010	18	.3	--	7	1100	--	--	--	--	--

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BARIUM, RECOV. FM BOTTOM MATERIAL (UG/G AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)
OCT 09...	1500	20	1	0	1	14	0	--	60	54	0
NOV 08...	0950	--	--	--	--	--	--	--	--	--	--
DEC 05...	1515	--	--	--	--	--	--	--	--	--	--
JAN 11...	1100	--	--	--	--	--	--	--	--	--	--
FEB 15...	1250	--	--	--	--	--	--	--	--	--	--
MAR 20...	1000	0	1	1	0	10	100	70	30	110	0
APR 09...	1115	--	--	--	--	--	--	--	--	--	--
MAY 15...	0855	--	--	--	--	--	--	--	--	--	--
JUN 18...	1215	--	--	--	--	--	--	--	--	--	--
JUL 15...	1630	--	--	--	--	--	--	--	--	--	--
AUG 19...	1715	--	--	--	--	--	--	--	--	--	--
SEP 26...	0920	--	--	--	--	--	--	--	--	--	--

DATE	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BERYLLIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)
OCT 09...	--	<1	0	160	1	--	13	0	20	10	10
NOV 08...	--	--	--	150	--	--	--	--	--	--	--
DEC 05...	--	--	--	170	--	--	--	--	--	--	--
JAN 11...	--	--	--	190	--	--	--	--	--	--	--
FEB 15...	--	--	--	150	--	--	--	--	--	--	--
MAR 20...	0	<1	1	130	0	0	<1	1	10	0	10
APR 09...	--	--	--	490	--	--	--	--	--	--	--
MAY 15...	--	--	--	140	--	--	--	--	--	--	--
JUN 18...	--	--	--	130	--	--	--	--	--	--	--
JUL 15...	--	--	--	190	--	--	--	--	--	--	--
AUG 19...	--	--	--	160	--	--	--	--	--	--	--
SEP 26...	--	--	--	180	--	--	--	--	--	--	--

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
OCT											
09...	6	0	--	<3	15	1	--	<10	5	20	15
NOV											
08...	--	--	--	--	--	--	--	--	--	10	--
DEC											
05...	--	--	--	--	--	--	--	--	--	10	--
JAN											
11...	--	--	--	--	--	--	--	--	--	20	--
FEB											
15...	--	--	--	--	--	--	--	--	--	10	--
MAR											
20...	4	3	0	<3	30	7	0	<10	8	<10	4
APR											
09...	--	--	--	--	--	--	--	--	--	40	--
MAY											
15...	--	--	--	--	--	--	--	--	--	70	--
JUN											
18...	--	--	--	--	--	--	--	--	--	10	--
JUL											
15...	--	--	--	--	--	--	--	--	--	50	--
AUG											
19...	--	--	--	--	--	--	--	--	--	30	--
SEP											
26...	--	--	--	--	--	--	--	--	--	40	--

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
OCT											
09...	0	--	30	30	--	50	60	--	41	160	.2
NOV											
08...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	--	--	--	--	--	--	--	--	--	--	--
JAN											
11...	--	--	--	--	--	--	--	--	--	--	--
FEB											
15...	--	--	--	--	--	--	--	--	--	--	--
MAR											
20...	0	30	0	40	0	46	130	70	56	470	.0
APR											
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
15...	--	--	--	--	--	--	--	--	--	--	--
JUN											
18...	--	--	--	--	--	--	--	--	--	--	--
JUL											
15...	--	--	--	--	--	--	--	--	--	--	--
AUG											
19...	--	--	--	--	--	--	--	--	--	--	--
SEP											
26...	--	--	--	--	--	--	--	--	--	--	--

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)
OCT 09...	.1	.1	.01	0	0	0	3	0	0	0	15
NOV 08...	--	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--	--
JAN 11...	--	--	--	--	--	--	--	--	--	--	--
FEB 15...	--	--	--	--	--	--	--	--	--	--	--
MAR 20...	.0	.0	.02	2	0	<10	1	5	5	0	10
APR 09...	--	--	--	--	--	--	--	--	--	--	--
MAY 15...	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--
JUL 15...	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	--	--	--	--	--	--	--	--	--	--	--
SEP 26...	--	--	--	--	--	--	--	--	--	--	--

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
OCT 09...	1	0	1	1	1200	<6.0	10	--	3	27
NOV 08...	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--
JAN 11...	--	--	--	--	--	--	--	--	--	--
FEB 15...	--	--	--	--	--	--	--	--	--	--
MAR 20...	1	0	1	0	1200	<6.0	50	40	9	25
APR 09...	--	--	--	--	--	--	--	--	--	--
MAY 15...	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--
JUL 15...	--	--	--	--	--	--	--	--	--	--
AUG 19...	--	--	--	--	--	--	--	--	--	--
SEP 26...	--	--	--	--	--	--	--	--	--	--

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT 09...	1500	<16	<.4	<6.0	1.0	<6.2	1.1	<11	<.3
MAR 20...	1000	<18	5.6	<6.8	3.4	<6.9	3.5	<12	3.8

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE, WATER (DEG C)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 12...	1100	--	10.0	.00	0	.00	.0	.00	0	.00	.0
MAY 15...	0900	--	12.0	.14	0	.00	.0	.00	0	.00	.0
JUN 16...	1030	--	--	.04	0	.00	.0	.00	0	.00	.0
JUL 14...	0930	16	--	.00	0	.00	.0	.00	0	.00	.0
SEP 05...	1230	10	17.0	.00	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
OCT 12...	.00	.0	.00	.0
MAY 15...	.00	.0	.01	.0
JUN 16...	.00	.0	.00	.0
JUL 14...	.00	.0	--	.0
SEP 05...	.02	.0	.00	.0

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPERATURE, WATER (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	NUMBER OF SAMPLING POINTS
OCT 09...	1500	10.0	22	11	.65	--	--	--	--	10
NOV 08...	0950	.5	39	21	2.2	--	--	--	--	--
DEC 05...	1515	.0	28	72	5.5	--	--	--	--	--
JAN 11...	1100	.0	13	69	2.4	--	--	--	--	--
FEB 15...	1250	.0	18	43	2.1	--	--	--	--	--
MAR 20...	1000	.5	47	179	23	--	--	--	--	--
APR 09...	1115	6.0	37	39	3.9	--	--	--	--	--
29...	1315	--	--	628	--	56	79	97	100	--
MAY 15...	0855	12.0	86	--	--	70	91	98	100	--
JUN 18...	1215	21.0	108	396	115	--	--	--	--	--
JUL 15...	1630	25.0	8.9	60	1.4	--	--	--	--	--
AUG 19...	1715	19.0	46	--	--	86	100	--	--	--
SEP 26...	0920	9.5	8.2	29	.64	--	--	--	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
OCT 09...	11	21	34	44	48	51	58	65	75	100
NOV 08...	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--
JAN 11...	--	--	--	--	--	--	--	--	--	--
FEB 15...	--	--	--	--	--	--	--	--	--	--
MAR 20...	5	12	54	90	92	97	99	100	--	--
APR 09...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
MAY 15...	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--
JUL 15...	--	--	--	--	--	--	--	--	--	--
AUG 19...	--	--	--	--	--	--	--	--	--	--
SEP 26...	--	--	--	--	--	--	--	--	--	--

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	OCT 9,79		NOV 8,79		DEC 5,79		JAN 11,80		FEB 15,80		MAR 20,80	
TIME	1500		0950		1515		1100		1250		1000	
TOTAL CELLS/ML	1200		270		1300		640		1200		480	
DIVERSITY: DIVISION	1.1		0.7		0.4		0.2		0.4		0.3	
.CLASS	1.1		1.0		0.5		0.2		0.5		0.3	
..ORDER	0.0		1.3		0.6		0.3		0.9		0.3	
...FAMILY	0.0		2.5		1.7		1.3		2.1		0.5	
....GENUS	0.0		2.5		1.7		1.3		2.3		1.8	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHLOROCOCCACEAE												
....CHLOROCOCCUM	59	5	--	-	--	-	--	-	--	-	--	-
...MICRACTINIACEAE												
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	92	8	--	-	14	1	--	-	27	2	15	3
....DICTYOSPHAERIUM	25	2	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE												
....CRUCIGENIA	--	-	--	-	41	3	--	-	--	-	--	-
....SCENEDESMUS	67	6	57#	21	--	-	21	3	27	2	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CARTERIA	--	-	--	-	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	--	-	--	-	14	1	--	-	--	-	15	3
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	230#	19	14	5	14	1	11	2	14	1	5	1
....MELOSIRA	--	-	--	-	--	-	--	-	82	7	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	5	1	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE												
....CYMBELLA	--	-	--	-	--	-	--	-	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-	--	-	--	-	--	-
....RHOPALODIA	--	-	--	-	--	-	--	-	--	-	--	-
...DIATOMACEAE												
....DIATOMA	17	1	43#	16	910#	68	480#	74	650#	55	310#	65
...FRAGILARIACEAE												
....ASTERIONELLA	--	-	--	-	--	-	--	-	--	-	--	-
....SYNEDRA	8	1	--	-	55	4	11	2	--	-	20	4
...GOMPHONEMATACEAE												
....GOMPHONEMA	--	-	--	-	--	-	--	-	14	1	10	2
...NAVICULACEAE												
....AMPHIPLEURA	--	-	29	11	--	-	--	-	--	-	--	-
....CALONEIS	--	-	--	-	14	1	--	-	--	-	--	-
....FRUSTULIA	--	-	--	-	--	-	--	-	41	3	--	-
....NAVICULA	130	10	--	-	14	1	16	2	150	13	40	8
....PLEUROSIGMA	200#	17	--	-	--	-	--	-	--	-	--	-
....STAURONEIS	--	-	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE												
....NITZSCHIA	280#	24	86#	32	220#	16	100#	16	140	12	61	13
...SURIRELLACEAE												
....CYMATOPLEURA	--	-	29	11	--	-	--	-	14	1	--	-
....SURIRELLA	--	-	--	-	--	-	--	-	--	-	--	-
...TABELLARIACEAE												
....TABELLARIA	8	1	--	-	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE												
..CHRYSOMONADALES												
...CHROMULINACEAE												
....CHRYSOCOCCUS	--	-	14	5	14	1	--	-	--	-	--	-
...OCHROMONADACEAE												
....OCHROMONAS	--	-	--	-	--	-	--	-	14	1	--	-
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE	8	1	--	-	--	-	--	-	--	-	--	-
..CRYPTOMONADALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	--	-	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE												
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	OCT 9,79		NOV 8,79		DEC 5,79		JAN 11,80		FEB 15,80		MAR 20,80	
TIME	1500		0950		1515		1100		1250		1000	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES												
...NOSTOCACEAE												
....ANABAENA	--	-	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	--	-	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	84	7	--	-	27	2	--	-	14	1	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	APR 9,80	MAY 15,80	JUN 18,80	JUL 15,80	AUG 19,80	SEP 26,80
TIME	1115	0855	1215	1630	1715	0920
TOTAL CELLS/ML	970	1700	1700	480	11000	1100
DIVERSITY: DIVISION	0.0	0.9	1.0	1.7	1.1	1.8
.CLASS	0.0	0.9	1.0	1.7	1.1	1.8
..ORDER	0.0	1.2	1.7	1.9	1.6	2.3
...FAMILY	1.0	3.0	1.8	2.8	2.3	2.7
....GENUS	1.0	3.2	1.8	2.8	2.4	2.7

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHLOROCOCCACEAE												
....CHLOROCOCCUM	--	-	--	-	--	-	--	-	--	-	--	-
...MICRACTINIACEAE												
....COLENKINIA	--	-	--	-	--	-	13	3	--	-	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	--	-	140#	30	290	3	310#	27
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	290	3	--	-
...SCENEDESMACEAE												
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	52	3	52	11	290	3	100	9
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CARTERIA	--	-	14	1	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	--	-	--	-	64	4	--	-	72	1	13	1
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	14	1	340#	20	13	3	360	3	210#	18
....MELOSIRA	--	-	--	-	--	-	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	150	9	--	-	--	-	--	-	--	-
...CYMBELLACEAE												
....CYMBELLA	--	-	55	3	--	-	--	-	--	-	--	-
....EPITHEMIA	--	-	14	1	--	-	--	-	72	1	--	-
....RHOPALODIA	--	-	14	1	--	-	--	-	--	-	--	-
...DIATOMACEAE												
....DIATOMA	810#	83	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE												
....ASTERIONELLA	--	-	--	-	13	1	--	-	--	-	--	-
....SYNEDRA	26	3	41	2	--	-	--	-	72	1	--	-
...GOMPHONEMATACEAE												
....GOMPHONEMA	26	3	82	5	--	-	--	-	--	-	--	-
...NAVICULACEAE												
....AMPHIPLEURA	--	-	--	-	--	-	--	-	--	-	--	-
....CALONEIS	--	-	--	-	--	-	--	-	--	-	--	-
....FRUSTULIA	--	-	--	-	--	-	--	-	--	-	--	-
....NAVICULA	17	2	340#	20	26	2	52	11	220	2	26	2
....PLEUROSIGMA	9	1	--	-	--	-	--	-	--	-	--	-
....STAURONEIS	--	-	27	2	--	-	--	-	--	-	--	-
...NITZSCHIACEAE												
....NITZSCHIA	87	9	400#	23	940#	56	100#	22	1400	14	230#	20
...SURIRELLACEAE												
....CYMATOPLEURA	--	-	27	2	--	-	--	-	--	-	--	-
....SURIRELLA	--	-	140	8	--	-	--	-	--	-	--	-
...TABELLARIACEAE												
....TABELLARIA	--	-	--	-	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE												
..CHRYSOMONADALES												
...CHROMULINACEAE												
....CHRYSOCOCCUS	--	-	--	-	--	-	--	-	--	-	--	-
...OCHROMONADACEAE												
....OCHROMONAS	--	-	--	-	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE	--	-	--	-	--	-	--	-	--	-	--	-
..CRYPTOMONADALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	--	-	--	-	52	11	--	-	--	-
...CRYPTOMONADACEAE												
....CRYPTOMONAS	--	-	--	-	--	-	13	3	--	-	13	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	APR 9,80		MAY 15,80		JUN 18,80		JUL 15,80		AUG 19,80		SEP 26,80	
TIME	1115		0855		1215		1630		1715		0920	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	270#	16	--	-	39	8	720	7	180#	16
..HORMOGONALES												
...NOSTOCACEAE												
....ANABAENA	--	-	--	-	--	-	--	-	5400#	51	--	-
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	140	8	260#	15	--	-	1400	14	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	--	-	--	-	--	-	--	-	--	-	13	1
....TRACHELOMONAS	--	-	14	1	--	-	--	-	--	-	52	4

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06317000 POWDER RIVER AT ARVADA, WY

LOCATION.--Lat 44°38'45", long 106°08'00", in NE¼NW¼ sec.21, T.54 N., R.77 W., Sheridan County, Hydrologic Unit 10090202, on left bank 0.5 mi (0.8 km) upstream from bridge on county road, 0.5 mi (0.8 km) southwest of Arvada, and 0.8 mi (1.3 km) upstream from Wild Horse Creek.

DRAINAGE AREA.--6,050 mi² (15,670 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1919 to current year (no winter records in water years 1919-30, 1934). Records for Feb. 16-23, 1930, published in WSP 701 are unreliable and should not be used.

REVISED RECORDS.--WSP 1509: 1921(M), 1923(M), 1924-26, 1927-28(M), 1929, 1930(M), 1931, 1932(M), 1933, 1934(M), 1935-36. See PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 3,622.01 ft (1,103.989 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 24, 1938, nonrecording gage at bridge 0.5 mi (0.8 km) downstream at datum 0.14 ft (0.043 m) lower.

REMARKS.--Records poor. Numerous small reservoirs and diversions for irrigation of about 29,000 acres (117 km²) above station.

AVERAGE DISCHARGE.--49 years (water years 1931-33, 1935-80), 282 ft³/s (7.986 m³/s), 204,300 acre-ft/yr (252 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 100,000 ft³/s (2,830 m³/s) Sept. 29, 1923, gage height, 23.7 ft (7.22 m), from floodmarks, site and datum then in use, from rating curve extended above 20,000 ft³/s (566 m³/s); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,800 ft³/s (79.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 24	2230	--	--	*6.63	2.021
May 26	2000	*2,920	82.7	5.55	1.692

No flow for Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	185	79	110	94	400	276	288	216	81	24	70
2	48	190	84	120	120	300	276	282	288	77	20	71
3	62	185	87	110	130	200	288	312	456	78	16	61
4	62	185	90	108	150	170	300	379	456	76	16	67
5	65	185	81	98	150	170	306	358	386	76	15	72
6	80	175	89	90	140	200	288	324	324	70	11	66
7	95	185	76	80	110	220	282	276	282	67	6.0	58
8	110	195	80	74	91	230	300	288	282	66	2.0	53
9	130	185	81	71	100	240	344	265	260	68	.00	50
10	155	207	73	68	100	250	306	306	240	65	1.0	46
11	195	200	68	66	90	300	276	306	196	62	11	46
12	214	175	80	80	100	300	270	300	184	58	10	47
13	214	142	79	98	88	300	276	408	168	54	8.4	47
14	235	150	89	110	84	350	265	797	150	52	10	48
15	214	146	68	110	80	400	245	552	153	52	228	49
16	235	155	60	102	80	600	240	456	638	50	826	55
17	195	160	80	100	100	507	220	282	312	47	581	58
18	221	200	90	90	130	480	216	250	330	48	400	56
19	235	200	91	87	160	365	212	212	294	47	192	54
20	288	200	83	100	144	300	208	184	552	45	150	53
21	263	155	77	115	300	288	196	196	240	43	114	52
22	214	88	70	125	640	324	242	192	141	41	100	51
23	195	108	70	140	800	306	393	196	112	38	82	53
24	200	130	70	140	1090	306	534	188	162	34	68	56
25	190	120	100	108	700	300	516	230	180	31	61	58
26	175	109	94	97	600	276	464	1040	126	29	55	57
27	170	90	93	90	540	260	337	1450	98	30	49	60
28	160	76	100	80	520	282	312	581	91	38	47	60
29	200	69	97	80	500	265	306	250	87	38	42	60
30	195	73	100	80	---	265	294	180	83	33	40	61
31	180	---	99	86	---	260	---	177	---	29	50	---
TOTAL	5237	4623	2578	3013	7931	9414	8988	11505	7487	1623	3235.40	1695
MEAN	169	154	83.2	97.2	273	304	300	371	250	52.4	104	56.5
MAX	288	207	100	140	1090	600	534	1450	638	81	826	72
MIN	42	69	60	66	80	170	196	177	83	29	.00	46
AC-FT	10390	9170	5110	5980	15730	18670	17830	22820	14850	3220	6420	3360

CAL YR 1979 TOTAL 103742.10 MEAN 284 MAX 1970 MIN 6.2 AC-FT 205800
WTR YR 1980 TOTAL 67329.40 MEAN 184 MAX 1450 MIN .00 AC-FT 133500

06317000 POWDER RIVER AT ARVADA, WY--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge on county road 0.1 mi (0.2 km) south of Arvada, 0.3 mi (0.5 km) upstream from Wild Horse Creek, and 0.5 mi (0.8 km) downstream from discharge station.

PERIOD OF RECORD.--Water years 1946-57, 1968 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: March 1949 to September 1957, October 1967 to September 1978.
SUSPENDED-SEDIMENT DISCHARGE: April 1946 to September 1957, October 1967 to September 1971, January 1975 to September 1978.

REMARKS.--No appreciable inflow between discharge station and sampling point except during periods of intense local rainfall.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 12...	1200	--	214	3300	8.5	10.0	650	10.4	K100	590
NOV 08...	0830	--	195	2600	8.4	2.0	500	--	--	480
DEC 06...	0810	89	--	3600	8.0	.5	60	--	--	790
JAN 10...	1250	68	--	3200	7.8	.0	90	10.2	K10	710
FEB 22...	1330	640	--	1570	7.8	1.0	200	--	--	460
APR 17...	1400	--	225	3160	8.3	14.0	550	9.5	K20	650
MAY 15...	1000	--	552	2400	8.1	13.0	8000	--	--	460
JUN 16...	1400	--	647	2900	8.0	23.0	--	--	--	620
JUL 14...	1500	--	52	5000	8.5	30.0	50	7.1	150	890
AUG 08...	1230	--	2.0	5500	8.4	20.0	--	--	--	1100
SEP 05...	1610	--	72	4800	8.3	24.0	--	--	--	700

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 12...	340	140	59	510	9.1	8.8	300	0	250	900
NOV 08...	230	110	51	360	7.1	6.3	310	0	250	590
DEC 06...	460	190	78	490	7.6	9.0	400	0	330	950
JAN 10...	300	180	67	550	8.9	8.3	500	0	410	850
FEB 22...	300	110	44	170	3.5	8.5	190	0	160	490
APR 17...	390	150	64	450	7.8	9.0	320	0	260	1000
MAY 15...	250	110	46	350	7.1	6.3	260	0	210	760
JUN 16...	470	160	56	370	6.4	7.5	180	0	150	940
JUL 14...	660	180	110	580	8.4	13	280	0	230	1300
AUG 08...	850	220	120	800	11	4.7	310	0	250	1650
SEP 05...	440	180	64	690	11	11	320	0	260	1100

06317000 POWDER RIVER AT ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
OCT 12...	400	.9	7.0	2180	2.96	1260	.10	1.220	--	--
NOV 08...	290	.9	6.4	1570	2.14	827	.20	.780	--	--
DEC 06...	360	.9	11	2290	3.11	550	.28	.050	--	--
JAN 10...	400	.9	14	2310	3.14	424	1.7	.180	--	--
FEB 22...	110	.6	8.3	1040	1.41	1800	.67	.400	.00	7
APR 17...	270	.8	7.8	2110	2.87	1280	.36	.890	--	0
MAY 15...	180	.9	8.4	1600	2.18	2380	.63	.130	.00	1
JUN 16...	200	.8	8.7	1800	2.45	3140	.44	3.900	--	40
JUL 14...	410	1.0	9.5	2740	3.73	385	.00	.170	--	3
AUG 08...	580	1.0	5.4	3530	4.80	19.1	.00	.030	--	0
SEP 05...	630	1.2	6.0	2840	3.86	555	.19	.070	--	20

06318500 CLEAR CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°19'58", long 106°46'36", in SE¼SW¼NW¼ sec.6, T.50 N., R.82 W., Johnson County, Hydrologic Unit 10090206, on left bank 500 ft (152 m) upstream from abandoned Pacific Power & Light Company powerplant, 2.0 mi (3.2 km) downstream from Mosier Gulch, and 4.0 mi (6.4 km) west of Buffalo.

DRAINAGE AREA.--120 mi^2 (311 km^2).

PERIOD OF RECORD.--April to September 1894, May to September 1896, May 1897 to December 1899, June 1917 to October 1927, April 1938 to current year. Published as "at Buffalo" 1897-98. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1896, 1898, 1938, 1939(M), 1945(M). WSP 1729: 1921.

GAGE.--Water-stage recorder. Datum of gage is 5,184.83 ft (1,580.336 m), National Geodetic Vertical Datum of 1929. See WSP 1916 for history of changes prior to 1961.

REMARKS.--Records good, except those for period of no gage-height record, Jan. 11 to Mar. 26, which are poor. Diversions above station for irrigation of about 330 acres (1.34 km^2), of which about 320 acres (1.30 km^2) are below station.

AVERAGE DISCHARGE.--54 years (water years 1898-99, 1918-27, 1939-80), 63.5 ft^3/s (1.798 m^3/s), 46,010 acre-ft/yr (56.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,420 ft^3/s (96.9 m^3/s) June 15, 1963, gage height, 6.19 ft (1.887 m), from rating curve extended above 900 ft^3/s (25.5 m^3/s) on basis of velocity-area study; no flow Feb. 14-16, 1939, Nov. 12, 13, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 380 ft^3/s (10.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 24	0400	*882	25.0	4.26	1.298
June 12	0430	610	17.3	3.84	1.170

Minimum daily discharge, 11 ft^3/s (0.31 m^3/s) Jan. 29 to Feb. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	21	22	16	11	15	13	126	215	215	39	38
2	31	23	21	16	11	15	13	128	209	189	41	32
3	31	28	21	16	11	15	13	116	220	169	39	29
4	31	32	21	16	11	14	14	126	259	152	40	30
5	30	30	21	15	11	14	15	173	313	123	38	27
6	30	23	21	15	11	14	16	153	290	111	35	26
7	29	24	20	15	11	13	15	139	228	96	34	26
8	28	27	20	15	11	13	15	124	197	96	34	25
9	30	26	21	16	11	13	14	145	217	116	33	26
10	32	26	21	16	11	13	14	217	286	102	33	26
11	31	24	23	17	11	13	15	164	359	85	35	25
12	30	24	25	17	11	13	15	130	484	74	33	26
13	29	27	23	16	11	13	16	109	380	68	33	26
14	28	26	22	15	11	14	18	114	304	63	35	26
15	27	22	21	15	11	14	28	107	329	61	38	24
16	30	22	21	14	11	14	28	110	256	58	49	33
17	34	26	21	14	11	14	32	119	215	55	49	36
18	32	27	20	14	12	14	48	132	241	53	41	29
19	30	26	19	13	12	14	80	158	259	55	40	33
20	31	27	19	13	12	14	124	149	256	62	42	35
21	32	31	19	12	12	14	156	236	265	62	39	33
22	29	32	18	12	13	14	160	495	253	58	37	33
23	32	33	18	12	13	14	119	659	213	55	34	32
24	32	30	18	12	14	14	133	605	191	54	32	31
25	31	24	18	12	14	14	137	544	173	65	30	30
26	31	23	18	12	14	13	109	290	176	55	31	29
27	29	23	17	12	14	13	82	239	174	51	32	27
28	27	23	16	12	15	13	82	217	130	47	29	25
29	30	22	16	11	15	13	100	242	110	44	28	24
30	24	22	15	11	---	13	110	271	132	43	28	23
31	17	---	15	11	---	13	---	239	---	41	35	---
TOTAL	919	774	611	433	347	424	1734	6776	7334	2578	1116	865
MEAN	29.6	25.8	19.7	14.0	12.0	13.7	57.8	219	244	83.2	36.0	28.8
MAX	34	33	25	17	15	15	160	659	484	215	49	38
MIN	17	21	15	11	11	13	13	107	110	41	28	23
AC-FT	1820	1540	1210	859	688	841	3440	13440	14550	5110	2210	1720

CAL YR 1979 TOTAL 25830 MEAN 70.8 MAX 540 MIN 14 AC-FT 51230
WTR YR 1980 TOTAL 23911 MEAN 65.3 MAX 659 MIN 11 AC-FT 47430

06320000 ROCK CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°27'22", long 106°52'42", in NW¼NW¼NW¼ sec.29, T.52 N., R.83 W., Johnson County, Hydrologic Unit 10090206, on left bank 300 ft (91 m) downstream from confluence of North and South Forks and 11.5 mi (18.5 km) northwest of Buffalo.

DRAINAGE AREA.--60.0 mi^2 (155.4 km^2).

PERIOD OF RECORD.--April to August 1941, April to December 1942, May 1943 to November 1944, April 1945 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 5,280 ft (1,609 m), from topographic map. Prior to Jan. 8, 1944, nonrecording gages 600 ft (183 m) upstream on North and South Forks at different datums. Jan. 8, 1944, to Sept. 30, 1952, water-stage recorder at present site at datum 0.72 ft (0.219 m) lower.

REMARKS.--Records good. Water is imported into drainage basin above station from South Piney Creek. Diversions for irrigation of about 250 acres (1.01 km^2) above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--27 years (water years 1944, 1946-71), 36.4 ft^3/s (1.031 m^3/s), 26,370 acre-ft/yr (32.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft^3/s (52.7 m^3/s) June 15, 1963, gage height, 7.98 ft (2.432 m), from rating curve extended above 450 ft^3/s (12.7 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft^3/s (0.014 m^3/s) Sept. 19, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1941, about 8.05 ft (2.454 m), probably during 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 382 ft^3/s (10.8 m^3/s) May 23, gage height, 5.54 ft (1.689 m); minimum daily during period of operation, 3.5 ft^3/s (0.009 m^3/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							4.5	51	133	82	51	13
2							4.4	50	133	75	51	13
3							4.4	43	129	70	52	12
4							4.5	47	150	66	53	12
5							5.1	71	159	62	53	13
6							5.4	57	143	59	53	13
7							4.9	56	114	57	54	13
8							6.7	63	96	51	57	13
9							4.7	70	106	29	57	14
10							5.1	127	127	26	57	14
11							4.7	75	133	23	56	14
12							4.5	60	125	22	55	15
13							4.7	54	101	26	55	15
14							6.1	55	90	31	55	15
15							9.1	56	121	43	55	14
16							8.6	62	93	40	57	15
17							9.1	77	77	43	46	19
18							13	84	74	47	33	16
19							17	103	71	46	30	17
20							25	101	63	48	29	17
21							34	181	66	46	27	14
22							41	276	63	45	24	11
23							38	271	57	44	24	10
24							40	218	53	43	23	11
25							45	238	49	43	22	11
26							38	147	50	45	20	11
27							33	129	62	44	20	10
28							34	133	60	41	19	9.6
29							39	145	68	40	14	4.5
30							44	161	74	38	15	3.5
31							---	143	---	42	13	---
TOTAL							537.5	3404	2840	1417	1230	382.6
MEAN							17.9	110	94.7	45.7	39.7	12.8
MAX							45	276	159	82	57	19
MIN							4.4	43	49	22	13	3.5
AC-FT							1070	6750	5630	2810	2440	759

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY

LOCATION.--Lat 44°21'44", long 106°39'13", in SW¼SE¼NW¼ sec.30, T.51 N., R.81 W., Johnson County, Hydrologic Unit 10090206, on right bank 100 ft (30 m) downstream from bridge on county road, 0.5 mi (0.8 km) downstream from Rock Creek, and 2.5 mi (4.0 km) northeast of Buffalo.

DRAINAGE AREA.--322 mi^2 (834 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1971 to current year (no winter records prior to 1976). Records prior to October 1975 in files of Office of Wyoming State Engineer.

GAGE.--Water-stage recorder. Altitude of gage is 4,480 ft (1,366 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 13,500 acres (54.6 km^2), of which 269 acres (1.09 km^2) are below station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,060 ft^3/s (58.3 m^3/s) May 30, 1971, gage height, 6.28 ft (1.914 m); minimum daily, 7.5 ft^3/s (0.21 m^3/s) July 31, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 987 ft^3/s (28.0 m^3/s) May 23, gage height, 4.84 ft (1.475 m); minimum daily, 12 ft^3/s (0.34 m^3/s) Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	48	50	38	52	85	42	138	248	170	14	26
2	39	48	52	37	56	90	42	137	232	163	16	27
3	41	52	57	39	60	84	44	121	227	136	15	32
4	44	61	62	33	56	70	50	120	270	118	17	29
5	43	61	58	39	50	70	56	176	360	94	18	26
6	43	55	56	30	52	70	52	146	359	78	17	24
7	43	54	52	30	50	74	46	118	276	66	16	23
8	43	54	50	30	46	80	41	96	227	59	16	25
9	51	59	49	30	50	84	45	100	246	61	19	26
10	52	51	48	30	48	52	44	253	334	47	18	24
11	52	55	47	31	46	50	45	210	407	32	18	26
12	51	51	46	38	50	50	44	138	528	27	17	35
13	52	54	45	39	49	41	42	103	427	25	18	36
14	48	53	43	41	45	46	43	100	326	21	17	39
15	45	52	42	35	40	51	54	93	397	18	24	34
16	50	52	40	33	40	43	59	86	309	31	33	52
17	54	50	45	30	60	42	55	94	232	29	34	60
18	54	53	50	28	80	44	66	105	236	30	23	49
19	54	52	48	27	90	43	89	140	261	26	18	50
20	54	51	46	27	94	41	132	125	246	31	23	62
21	56	48	44	30	110	42	172	222	258	31	21	60
22	55	46	43	32	100	40	186	635	256	26	19	62
23	58	49	42	35	84	41	156	797	199	22	17	58
24	59	50	45	35	80	43	152	731	170	19	15	56
25	61	50	40	30	80	41	179	713	140	26	14	56
26	60	48	40	28	90	39	142	369	136	21	17	55
27	60	44	40	27	110	40	110	273	142	21	18	50
28	58	42	40	27	98	42	103	237	110	17	15	50
29	67	40	40	30	80	40	115	265	92	14	12	46
30	64	44	40	35	---	43	125	362	94	17	15	44
31	54	---	41	39	---	46	---	287	---	16	23	---
TOTAL	1605	1527	1441	1013	1946	1667	2531	7490	7745	1492	577	1242
MEAN	51.8	50.9	46.5	32.7	67.1	53.8	84.4	242	258	48.1	18.6	41.4
MAX	67	61	62	41	110	90	186	797	528	170	34	62
MIN	39	40	40	27	40	39	41	86	92	14	12	23
AC-FT	3180	3030	2860	2010	3860	3310	5020	14860	15360	2960	1140	2460

CAL YR 1979 TOTAL 33657 MEAN 92.2 MAX 693 MIN 34 AC-FT 66760
WTR YR 1980 TOTAL 30276 MEAN 82.7 MAX 797 MIN 12 AC-FT 60050

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 17...	1245	--	56	790	8.5	9.0	11.0	2.6	96	330	180	78
NOV 08...	1630	--	52	800	8.5	2.0	12.6	2.6	110	350	200	82
DEC 12...	1530	46	--	890	8.0	.0	11.6	2.8	--	400	210	94
JAN 10...	1430	30	--	780	7.7	.0	10.6	2.1	K2000	340	160	83
FEB 20...	1640	94	--	630	7.8	.5	11.0	9.1	1300	440	290	100
APR 15...	1530	--	55	820	8.8	12.0	11.2	3.2	230	340	210	79
MAY 13...	1700	--	82	750	8.7	12.0	10.8	5.0	240	310	200	70
JUN 12...	1800	--	451	160	8.2	16.0	8.7	1.5	130	54	32	13
JUL 09...	1800	--	60	480	8.9	25.0	8.0	2.5	400	200	93	50
AUG 05...	1545	--	18	1020	8.8	21.0	11.0	2.4	160	420	240	100
SEP 04...	1745	--	29	830	8.9	18.0	9.1	1.8	180	330	180	79

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT 17...	32	39	.9	3.4	150	250	4.5	.2	12	510	.69	74.4
NOV 08...	36	42	1.0	2.8	150	280	4.0	.2	12	549	.75	77.1
DEC 12...	39	47	1.0	2.8	190	290	4.5	.2	14	606	.82	75.3
JAN 10...	33	44	1.0	2.8	180	260	5.4	.2	14	551	.75	44.6
FEB 20...	46	59	1.2	9.2	150	380	7.5	.2	14	706	.96	179
APR 15...	35	45	1.1	2.6	130	290	4.1	.2	10	544	.74	80.8
MAY 13...	32	39	1.0	2.5	110	280	3.2	.1	11	504	.69	112
JUN 12...	5.3	6.5	.4	.9	22	42	.8	.0	6.6	88	.12	107
JUL 09...	19	24	.7	2.1	110	150	2.2	.2	9.0	--	--	--
AUG 05...	41	51	1.1	3.3	180	350	4.1	.3	11	669	.91	33.6
SEP 04...	33	43	1.0	3.1	150	270	3.7	.2	10	532	.72	41.9

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
OCT 17...	.00	.140	.17	.38	.52	.52	2.3	.060	.18	--	--
NOV 08...	.04	.040	.05	2.3	2.3	2.3	10	.080	.25	--	--
DEC 12...	.08	.360	.44	.54	.90	.98	4.3	.110	.34	--	--
JAN 10...	.28	.430	.52	1.3	1.7	2.0	8.8	.190	.58	--	--
FEB 20...	.45	.640	.77	2.7	3.3	3.8	17	.300	.92	.00	10
APR 15...	.03	.060	.07	.76	.82	.85	3.8	.150	.46	--	1
MAY 13...	.03	.160	.19	.57	.73	.76	3.4	.120	.37	.00	5
JUN 12...	.03	.010	.01	.45	.46	.49	2.2	.050	.15	--	15
JUL 09...	.03	.050	.06	.83	.88	.91	4.0	.060	.18	--	4
AUG 05...	.00	.030	.04	1.2	1.2	1.2	5.3	.130	.40	--	14
SEP 04...	.00	.000	.00	.72	.72	.72	3.2	.120	.37	--	8

DATE	TIME	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, SUS-PENDED RECOV. (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BERYL-LIUM, SUS-PENDED RECOV. (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
OCT 17...	1245	30	30	0	0	0	0	0	0	<1	80	2
NOV 08...	1630	--	--	--	--	--	--	--	--	--	4	--
DEC 12...	1530	--	--	--	--	--	--	--	--	--	70	--
JAN 10...	1430	0	--	--	1	--	--	0	--	--	70	2
FEB 20...	1640	--	--	--	--	--	--	--	--	--	160	--
APR 15...	1530	170	--	--	1	--	--	0	--	--	50	0
MAY 13...	1700	--	--	--	--	--	--	--	--	--	80	--
JUN 12...	1800	--	--	--	--	--	--	--	--	--	10	--
JUL 09...	1800	270	--	--	2	--	--	0	--	--	50	1
AUG 05...	1545	--	--	--	--	--	--	--	--	--	130	--
SEP 04...	1745	--	--	--	--	--	--	--	--	--	170	--

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
OCT												
17...	1	<1	0	0	0	3	0	4	220	--	80	0
NOV												
08...	--	--	--	--	--	--	--	--	--	--	90	--
DEC												
12...	--	--	--	--	--	--	--	--	--	--	150	--
JAN												
10...	--	--	0	--	--	0	--	--	60	40	20	4
FEB												
20...	--	--	--	--	--	--	--	--	--	--	130	--
APR												
15...	--	--	0	--	--	2	--	--	300	260	40	0
MAY												
13...	--	--	--	--	--	--	--	--	--	--	80	--
JUN												
12...	--	--	--	--	--	--	--	--	--	--	60	--
JUL												
09...	--	--	0	--	--	7	--	--	370	340	30	0
AUG												
05...	--	--	--	--	--	--	--	--	--	--	30	--
SEP												
04...	--	--	--	--	--	--	--	--	--	--	<10	--

DATE	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM SUS-PENDED RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)
OCT												
17...	0	1	20	0	30	30	10	20	.0	.0	.0	0
NOV												
08...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
12...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
10...	--	--	10	--	--	60	--	--	.0	--	--	2
FEB												
20...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
15...	--	--	10	--	--	70	--	--	.0	--	--	0
MAY												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
12...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
09...	--	--	10	--	--	40	--	--	.0	--	--	0
AUG												
05...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
04...	--	--	--	--	--	--	--	--	--	--	--	--

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	MOLYB-DENUM, SUS-PENDED RECOV. (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 17...	0	<10	2	0	7	0	0	0	<1.0	0	0	8
NOV 08...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 12...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 10...	--	--	4	--	--	1	--	--	--	100	--	--
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--
APR 15...	--	--	7	--	--	0	--	--	--	150	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	1	--	--	0	--	--	--	20	--	--
AUG 05...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 04...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
NOV 08...	1630	<9.0	<.4	6.3	.6	6.4	.7	.06	5.0	<6.1	<.3

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 17...	1245	.00	0	.00	.0	.00	0	.00	.0
MAY 13...	1700	.00	0	.00	.0	.00	0	.00	.0
JUN 12...	1800	.00	0	.00	.0	.00	0	.00	.0
JUL 09...	1800	.28	0	.00	.0	.00	0	.00	.0
SEP 04...	1745	.03	0	.00	.0	.02	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA-TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA-TERIAL (UG/KG)
OCT 17...	.00	.0	.01	.0
MAY 13...	.00	.0	.01	.0
JUN 12...	.00	.0	.00	.0
JUL 09...	.00	.0	.01	.0
SEP 04...	.00	.0	.01	.0

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
04...	1300	10.0	--	44	7	.83	--
NOV							
02...	1600	3.5	--	42	8	.91	82
DEC							
05...	1700	.0	58	--	9	1.4	--
JAN							
10...	0945	.0	30	--	9	.73	--
FEB							
21...	1605	.0	110	--	21	6.2	--
APR							
02...	1455	3.5	--	42	4	.45	--
MAY							
02...	1700	11.5	--	134	22	8.0	--
22...	1500	14.0	--	681	674	1240	84
26...	1130	5.5	--	323	42	37	64
JUN							
12...	1800	16.0	--	451	41	50	--
JUL							
09...	1800	25.0	--	60	10	1.6	--
AUG							
05...	1545	21.0	--	18	6	.30	--
SEP							
04...	1745	18.0	--	29	5	.39	--

06320400 CLEAR CREEK AT UCROSS, WY

LOCATION.--Lat 44°33'09", long 106°32'06", in NE¼SW¼NE¼ sec.19, T.53 N., R.80 W., Johnson County, Hydrologic Unit 10090206, on left bank 0.5 mi (0.8 km) upstream from Sheridan-Johnson County line, 0.7 mi (1.1 km) south of Ucross, and 1.6 mi (2.6 km) upstream from Piney Creek.

DRAINAGE AREA.--409 mi^2 (1,059 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,070 ft (1,241 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 17,700 acres (71.6 km^2), of which about 200 acres (0.81 km^2) are below station. Water was diverted into Lake De Smet and then released into Piney Creek basin, bypassing the station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,740 ft^3/s (49.3 m^3/s) May 19, 1978, gage height, 9.07 ft (2.765 m); minimum daily, 4.2 ft^3/s (0.12 m^3/s) Aug. 1, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 534 ft^3/s (15.1 m^3/s) May 25, gage height, 5.80 ft (1.768 m); minimum daily, 5.6 ft^3/s (0.16 m^3/s) Apr. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	19	17	16	10	24	15	8.3	127	78	15	24
2	53	17	17	15	11	25	14	7.4	138	141	16	28
3	46	16	18	16	11	23	14	12	134	125	17	25
4	45	17	19	15	10	22	14	22	131	106	19	30
5	52	17	18	15	10	20	10	25	131	90	19	29
6	49	16	18	12	9.8	20	7.7	22	141	75	23	24
7	49	16	18	9.0	9.5	21	7.4	19	149	57	20	23
8	50	17	17	7.8	9.0	22	7.4	22	139	40	19	23
9	50	17	16	7.0	10	23	6.8	64	133	35	18	30
10	55	17	16	7.8	9.5	23	6.5	89	133	30	20	34
11	54	18	14	8.0	9.5	24	5.9	83	142	27	20	37
12	26	16	14	9.0	9.5	22	5.6	82	232	22	19	43
13	16	17	15	10	9.7	22	7.7	77	363	12	19	52
14	11	17	15	10	9.0	23	9.2	71	259	9.2	35	55
15	11	18	15	10	8.6	22	9.2	68	300	8.3	24	48
16	19	17	13	9.6	8.5	21	9.2	48	185	7.4	31	59
17	20	17	14	9.6	10	22	8.9	37	157	7.7	38	72
18	19	17	16	9.0	15	22	8.9	36	131	11	31	61
19	19	16	16	8.6	22	21	8.9	32	95	13	24	54
20	18	14	16	8.2	25	19	8.9	39	96	13	25	59
21	19	15	16	8.3	25	17	9.2	34	119	14	24	69
22	18	15	15	8.8	25	17	8.9	34	163	12	20	68
23	19	16	16	9.0	24	17	8.9	239	182	13	19	64
24	20	16	17	9.0	24	17	8.6	341	88	14	19	62
25	39	17	17	9.0	24	15	8.3	324	66	10	16	62
26	30	16	16	8.0	25	14	8.0	254	56	11	12	60
27	20	17	16	7.6	27	14	8.3	170	50	10	18	58
28	20	16	16	7.6	28	14	7.7	201	68	11	19	56
29	22	16	15	7.4	28	14	7.7	179	64	12	16	52
30	46	17	15	7.0	---	14	7.7	196	60	11	16	50
31	25	---	16	8.0	---	14	---	124	---	12	17	---
TOTAL	995	497	497	302.3	456.6	608	268.5	2959.7	4232	1037.6	648	1411
MEAN	32.1	16.6	16.0	9.75	15.7	19.6	8.95	95.5	141	33.5	20.9	47.0
MAX	55	19	19	16	28	25	15	341	363	141	38	72
MIN	11	14	13	7.0	8.5	14	5.6	7.4	50	7.4	12	23
AC-FT	1970	986	986	600	906	1210	533	5870	8390	2060	1290	2800

CAL YR 1979 TOTAL 16381.0 MEAN 44.9 MAX 500 MIN 8.5 AC-FT 32490
WTR YR 1980 TOTAL 13912.7 MEAN 38.0 MAX 363 MIN 5.6 AC-FT 27600

YELLOWSTONE RIVER BASIN

06320400 CLEAR CREEK AT UCROSS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 17...	1400	--	20	1200	8.3	11.0	11.5	1.7	530	280	120	56
NOV 08...	1510	--	17	1250	8.3	3.5	14.2	2.1	550	310	120	60
DEC 06...	1320	18	--	1210	8.0	1.0	12.6	1.7	530	290	120	57
JAN 16...	1400	9.6	--	1100	7.7	1.0	11.8	--	490	260	110	53
FEB 20...	1530	25	--	900	7.5	.5	10.8	>9.0	340	170	75	38
APR 16...	0830	--	9.5	1570	8.2	8.0	10.2	2.5	670	400	140	78
MAY 13...	1500	--	77	800	8.8	12.0	10.3	2.4	320	210	70	36
JUN 12...	1430	--	260	340	8.3	19.0	8.5	2.4	130	70	31	13
JUL 09...	1500	--	38	850	8.4	27.0	8.0	2.1	370	210	87	37
AUG 05...	1330	--	19	1200	8.3	18.0	9.6	2.8	500	240	110	54
SEP 04...	1530	--	33	1280	8.5	20.0	9.8	2.6	560	340	130	58

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT 17...	74	1.4	5.7	250	440	5.1	.2	7.3	859	1.17	464
NOV 08...	76	1.4	5.2	240	460	5.2	.2	10	881	1.20	40.4
DEC 06...	73	1.4	4.5	240	420	4.9	.2	10	834	1.13	40.5
JAN 16...	70	1.4	4.3	230	430	5.2	.2	10	821	1.12	21.3
FEB 20...	47	1.1	19	170	270	7.8	.2	11	571	.78	38.5
APR 16...	120	2.0	6.5	270	640	6.3	.2	3.6	1160	1.58	29.8
MAY 13...	46	1.1	3.3	110	290	3.3	.1	8.4	523	.71	109
JUN 12...	17	.6	1.7	61	100	1.3	.1	7.9	209	.28	147
JUL 09...	44	1.0	4.0	160	280	3.8	.3	6.5	559	.76	57.8
AUG 05...	75	1.5	5.7	260	410	3.5	.3	9.6	825	1.12	42.3
SEP 04...	71	1.3	5.8	220	480	5.3	.2	6.7	889	1.21	79.2

06320400 CLEAR CREEK AT UCROSS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
OCT 17...	.04	.100	.12	.56	.66	.70	3.1	.010	.03	--	--
NOV 08...	.02	.050	.06	.53	.58	.60	2.7	.010	.03	--	--
DEC 06...	.02	.060	.07	.46	.52	.54	2.4	.010	.03	--	--
JAN 16...	.26	.080	.10	1.0	1.1	1.4	6.0	.070	.21	--	--
FEB 20...	.53	1.400	1.7	6.2	7.6	8.1	36	.280	.86	.00	39
APR 16...	.04	.130	.16	1.1	1.2	1.2	5.5	.060	.18	--	1
MAY 13...	.01	.010	.01	.87	.88	.89	3.9	.060	.18	.00	3
JUN 12...	.01	.010	.01	1.2	1.2	1.2	5.4	.160	.49	--	8
JUL 09...	.01	.010	.01	.78	.79	.80	3.5	.030	.09	--	7
AUG 05...	.00	.030	.04	3.3	3.3	3.3	15	.060	.18	--	4
SEP 04...	.00	.060	.07	1.0	1.1	1.1	4.9	.070	.21	--	4

DATE	TIME	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, SUS-PENDED RECOV. (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BERYL-LIUM, SUS-PENDED RECOV. (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)
OCT 17...	1400	60	40	20	0	0	0	0	0	<1	150	2
NOV 08...	1510	--	--	--	--	--	--	--	--	--	140	--
DEC 06...	1320	--	--	--	--	--	--	--	--	--	120	--
JAN 16...	1400	120	--	--	1	--	--	0	--	--	110	2
FEB 20...	1530	--	--	--	--	--	--	--	--	--	190	--
APR 16...	0830	100	--	--	1	--	--	0	--	--	160	1
MAY 13...	1500	--	--	--	--	--	--	--	--	--	90	--
JUN 12...	1430	--	--	--	--	--	--	--	--	--	50	--
JUL 09...	1500	180	--	--	1	--	--	0	--	--	100	0
AUG 05...	1330	--	--	--	--	--	--	--	--	--	170	--
SEP 04...	1530	--	--	--	--	--	--	--	--	--	170	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
OCT 17...	0	2	0	0	0	2	0	3	80	--	50	0
NOV 08...	--	--	--	--	--	--	--	--	--	--	100	--
DEC 06...	--	--	--	--	--	--	--	--	--	--	240	--
JAN 16...	--	--	0	--	--	5	--	--	170	120	50	3
FEB 20...	--	--	--	--	--	--	--	--	--	--	210	--
APR 16...	--	--	0	--	--	3	--	--	310	270	40	0
MAY 13...	--	--	--	--	--	--	--	--	--	--	50	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	50	--
JUL 09...	--	--	0	--	--	3	--	--	290	250	40	0
AUG 05...	--	--	--	--	--	--	--	--	--	--	10	--
SEP 04...	--	--	--	--	--	--	--	--	--	--	<10	--

DATE	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM SUS-PENDED RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)
OCT 17...	0	2	30	0	40	20	10	10	.0	.0	.0	0
NOV 08...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 16...	--	--	10	--	--	40	--	--	.0	--	--	0
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--
APR 16...	--	--	30	--	--	230	--	--	.0	--	--	0
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	20	--	--	70	--	--	.0	--	--	1
AUG 05...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 04...	--	--	--	--	--	--	--	--	--	--	--	--

06320400 CLEAR CREEK AT UCROSS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 17...	0	<10	0	0	7	0	0	0	<1.0	0	0	10
NOV 08...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 16...	--	--	4	--	--	1	--	--	--	10	--	--
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--
APR 16...	--	--	7	--	--	1	--	--	--	90	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	2	--	--	0	--	--	--	20	--	--
AUG 05...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 04...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
NOV 08...	1510	<15	<.4	6.2	<.4	6.3	<.4	.09	9.6	<10	<.3

DATE	TIME	TEMPERATURE, WATER (DEG C)	STREAMFLOW (CFS)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT 04...	1425	15.0	--	47	5	.63
NOV 07...	1225	3.5	--	17	10	.46
DEC 05...	1440	.5	18	--	4	.19
JAN 10...	1530	.0	7.8	--	80	1.7
FEB 21...	1335	.0	25	--	24	1.6
APR 02...	0950	4.5	--	14	26	.98
MAY 02...	1330	19.5	--	7.1	26	.50
26...	1630	14.0	--	185	110	55
JUN 12...	1430	19.0	--	260	197	138
JUL 09...	1500	27.0	--	38	10	1.0
AUG 05...	1330	18.0	--	19	34	1.7
SEP 04...	1530	20.0	--	33	120	11

06320500 SOUTH PINEY CREEK AT WILLOW PARK, WY

LOCATION.--Lat 44°27'59", long 107°02'03", in NW¼ sec.24, T.52 N., R.85 W., Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, on left bank about 300 ft (91 m) downstream from Willow Park Dam, 1.4 mi (2.3 km) upstream from Kearny Creek, and 10 mi (16 km) southwest of Story.

DRAINAGE AREA.--33.6 mi^2 (87.0 km^2).

PERIOD OF RECORD.--September 1945 to September 1957 (no winter records prior to 1948), October 1959 to current year (no winter records since 1971).

REVISED RECORDS.--WSP 1309: 1949(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,540 ft (2,603 m), from topographic map. Prior to Oct. 1, 1957, at site about 600 ft (183 m) upstream at different datum. Oct. 1, 1959, to Sept. 30, 1965, at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. No gage-height record Apr. 1 to June 9. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft (4.17 hm^3), and Willow Park Reservoir, capacity, 4,457 acre-ft (5.50 hm^3). Storage began in Willow Park Reservoir in April 1959. Cloud Peak Reservoir enlarged December 1958. Water released from storage in Cloud Peak Reservoir is diverted just below station into Rock Creek basin.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--22 years (water years 1948-57, 1960-71), 42.4 ft^3/s (1.201 m^3/s), 30,720 acre-ft/yr (37.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,620 ft^3/s (45.9 m^3/s) June 15, 1963, gage height, 5.68 ft (1.731 m), present datum, from rating curve extended above 360 ft^3/s (10.2 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 0.30 ft^3/s (0.008 m^3/s) Nov. 19-21, 1966, but may have been less on individual days of no gage-height record; minimum daily determined prior to construction of Willow Park Reservoir, 4.5 ft^3/s (0.13 m^3/s) Mar. 1 to Apr. 5, 1955, but may have been less during years of no winter records.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 281 ft^3/s (7.96 m^3/s) June 12, gage height, 3.65 ft (1.113 m); minimum daily during period of operation, 8.6 ft^3/s (0.244 m^3/s) Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									160	109	102	64
2									150	140	102	60
3									155	134	104	56
4									170	116	111	57
5									200	102	108	58
6									200	90	104	57
7									180	80	105	55
8									165	78	105	51
9									170	79	104	45
10									194	76	102	40
11									239	73	100	35
12									271	73	10[illegible]	35
13									255	80	98	34
14									220	86	96	34
15									211	98	95	34
16									178	109	90	34
17									137	114	79	33
18									134	118	70	36
19									139	116	68	38
20									144	119	68	38
21									166	125	71	36
22									176	125	73	34
23									162	112	73	31
24									146	108	73	29
25									126	112	71	29
26									108	111	68	29
27									116	109	68	29
28									103	105	68	18
29									88	105	69	8.6
30									85	99	67	8.6
31									---	99	66	---
TOTAL									4948	3200	2678	1146.2
MEAN									165	103	86.4	38.2
MAX									271	140	111	64
MIN									85	73	66	8.6
AC-FT									9810	6350	5310	2270

06321000 SOUTH PINEY CREEK NEAR STORY, WY

LOCATION.--Lat 44°33'26", long 106°56'11", in NW¼NE¼NE¼ sec.23, T.53 N., R.84 W., Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, on left bank 2.3 mi (3.7 km) southwest of Story and 3.3 mi (5.3 km) upstream from confluence with North Piney Creek.

DRAINAGE AREA.--69.4 mi^2 (179.7 km^2).

PERIOD OF RECORD.--June 1951 to September 1974 (no winter records in water years 1972-74), November 1974 to September 1980 (discontinued).

REVISED RECORDS.--WSP 1916: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,590 ft (1,704 m), from topographic map. Prior to Oct. 1, 1951, nonrecording gage at site 300 ft (91 m) upstream at different datum. Oct. 1, 1951, to July 9, 1970, at site 200 ft (61 m) downstream at datum 10.08 ft (3.072 m) lower.

REMARKS.--Records fair. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft (4.17 hm^3), Willow Park Reservoir, capacity, 4,457 acre-ft (5.50 hm^3), and Kearny Lake, capacity, 1,860 acre-ft (2.29 hm^3). Diversion above station into Rock Creek basin for irrigation.

AVERAGE DISCHARGE.--25 years (water years 1952-71, 1976-80), 76.9 ft^3/s (2.178 m^3/s), 55,710 acre-ft/yr (68.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,090 ft^3/s (59.2 m^3/s) June 15, 1963, gage height, 4.37 ft (1.332 m), site and datum then in use, from rating curve extended above 1,050 ft^3/s (29.7 m^3/s); maximum gage height, 6.55 ft (1.996 m) Mar. 30, 1977 (backwater from snow and ice); minimum daily discharge, 0.40 ft^3/s (0.011 m^3/s) Nov. 14, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 438 ft^3/s (12.4 m^3/s) June 12, gage height, 3.41 ft (1.039 m) minimum daily discharge, 15 ft^3/s (0.42 m^3/s) for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	19	16	19	17	17	20	49	233	132	126	96
2	57	17	17	19	16	17	20	47	222	225	120	92
3	57	19	17	19	16	17	21	44	229	225	124	90
4	56	20	19	19	16	16	20	47	261	197	120	92
5	55	19	18	19	16	16	22	57	327	152	118	90
6	55	17	19	18	15	17	22	52	327	115	115	90
7	53	17	18	17	15	18	22	51	285	94	112	86
8	53	20	18	18	15	17	21	51	257	85	108	83
9	52	17	18	18	16	17	23	53	261	108	108	76
10	46	20	18	18	16	19	24	66	310	106	106	71
11	25	20	17	17	15	19	23	58	363	158	104	69
12	22	17	16	19	15	19	20	56	417	152	104	69
13	22	20	18	18	15	17	23	52	410	152	102	69
14	21	19	18	18	15	20	26	53	396	152	102	69
15	22	19	17	17	15	19	28	52	375	135	102	69
16	25	18	16	17	15	17	28	52	345	163	104	72
17	22	19	16	17	15	19	30	53	310	158	104	68
18	21	19	18	18	15	20	32	55	290	163	104	60
19	21	18	19	17	15	20	36	56	275	166	104	64
20	21	18	19	16	15	20	39	56	261	166	104	62
21	22	15	18	16	15	20	41	58	270	172	106	62
22	20	15	18	16	15	20	44	62	327	175	108	62
23	22	18	18	16	15	18	45	50	315	166	108	60
24	22	19	18	17	15	21	49	51	290	158	108	58
25	22	18	18	16	17	21	49	81	257	158	108	57
26	21	16	18	16	16	19	44	69	204	152	104	56
27	20	16	16	15	17	19	42	115	197	152	104	56
28	20	15	19	15	16	21	42	208	184	152	102	55
29	20	16	19	15	16	20	42	225	138	152	96	46
30	20	16	19	16	---	20	45	261	102	142	98	43
31	18	---	20	17	---	20	---	253	---	130	98	---
TOTAL	990	536	553	533	450	580	943	2493	8438	4713	3331	2092
MEAN	31.9	17.9	17.8	17.2	15.5	18.7	31.4	80.4	281	152	107	69.7
MAX	57	20	20	19	17	21	49	261	417	225	126	96
MIN	18	15	16	15	15	16	20	44	102	85	96	43
AC-FT	1960	1060	1100	1060	893	1150	1870	4940	16740	9350	6610	4150

CAL YR 1979 TOTAL 25312 MEAN 69.3 MAX 420 MIN 14 AC-FT 50210
WTR YR 1980 TOTAL 25652 MEAN 70.1 MAX 417 MIN 15 AC-FT 50880

06321500 NORTH PINEY CREEK NEAR STORY, WY

LOCATION.--Lat 44°34'50", long 106°55'55", in NW¼SW¼ sec.12, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, on left bank 2.1 mi (3.4 km) west of Story and 3.2 mi (5.1 km) upstream from confluence with South Piney Creek.

DRAINAGE AREA.--36.8 mi² (95.3 km²).

PERIOD OF RECORD.--June 1951 to current year.

REVISED RECORDS.--WSP 1916: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,290 ft (1,612 m), from topographic map. Prior to Sept. 14, 1951, nonrecording gage at present site and datum.

REMARKS.--Records good. No diversion above station.

AVERAGE DISCHARGE.--29 years, 38.8 ft³/s (1.099 m³/s), 28,110 acre-ft/yr (34.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,820 ft³/s (51.5 m³/s) June 15, 1963, gage height, 5.04 ft (1.536 m), from rating curve extended above 1,000 ft³/s (28.3 m³/s); minimum daily discharge, 3.0 ft³/s (0.085 m³/s) Mar. 12, 1956, Jan. 20, 21, 24, 25, Mar. 3, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 10	0415	246	6.97	2.47	0.753
May 25	0400	*273	7.73	2.54	.774

Minimum daily discharge, 5.2 ft³/s (0.147 m³/s) Dec. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	10	5.8	6.5	6.3	6.3	5.9	132	94	26	11	9.9
2	8.7	9.2	6.1	7.0	6.1	6.7	6.6	129	96	26	11	9.0
3	9.9	9.6	5.2	7.0	6.1	6.0	6.6	131	93	23	11	9.1
4	9.5	9.6	7.2	7.0	6.1	6.1	6.9	150	99	22	13	9.7
5	8.9	9.4	6.8	7.0	6.1	6.4	7.0	180	104	21	11	8.3
6	8.5	9.1	6.8	7.7	5.8	6.0	7.4	169	106	20	10	8.1
7	8.3	8.5	7.0	7.5	6.1	5.6	7.1	165	87	19	10	8.0
8	9.3	8.6	6.8	7.5	6.8	5.4	6.9	163	73	19	10	8.9
9	9.9	8.3	6.8	7.5	6.5	5.4	7.2	171	69	18	10	9.3
10	11	8.0	6.3	7.7	6.3	5.4	7.5	209	77	17	10	8.6
11	9.8	8.1	5.2	7.5	6.3	5.4	6.9	160	78	16	10	9.2
12	8.9	8.2	6.4	7.7	6.3	5.9	7.4	142	71	16	9.3	15
13	8.8	7.8	7.2	8.0	6.3	5.7	7.5	128	62	15	10	12
14	8.6	7.5	7.2	7.7	6.3	5.7	9.7	122	57	15	13	10
15	8.7	7.5	6.5	7.5	6.1	5.6	14	118	71	15	12	9.9
16	25	7.4	6.5	7.0	6.1	6.0	15	120	58	14	25	19
17	13	7.8	7.2	7.0	6.1	5.8	17	121	51	14	21	22
18	11	7.5	7.2	7.2	6.1	5.9	23	117	47	16	12	16
19	10	7.2	7.0	7.0	6.3	5.9	31	120	44	14	11	18
20	11	7.4	7.0	7.2	6.3	6.1	43	120	42	14	11	14
21	11	6.5	6.8	7.2	5.8	5.9	53	143	40	14	11	13
22	9.4	6.8	7.0	7.2	5.7	6.0	67	190	38	13	10	12
23	11	7.2	7.0	7.5	5.5	6.2	74	209	35	13	9.4	11
24	11	7.0	7.0	7.2	5.6	6.3	90	181	33	12	9.0	12
25	11	7.0	7.0	7.7	5.6	6.2	95	216	31	12	8.7	13
26	11	6.8	6.8	7.7	5.6	6.2	90	129	30	12	9.4	13
27	9.5	6.3	6.8	7.5	6.8	7.1	89	111	28	12	9.4	11
28	9.7	6.1	6.3	6.8	7.0	5.8	94	112	27	11	9.0	10
29	7.2	5.8	6.1	6.3	6.3	5.8	103	116	26	11	8.7	9.6
30	9.8	6.1	5.6	6.5	---	6.0	124	110	24	11	9.0	9.2
31	11	---	5.4	6.3	---	5.3	---	101	---	11	10	---
TOTAL	318.7	232.3	205.0	224.1	178.3	184.1	1122.6	4485	1791	492	344.9	347.8
MEAN	10.3	7.74	6.61	7.23	6.15	5.94	37.4	145	59.7	15.9	11.1	11.6
MAX	25	10	7.2	8.0	7.0	7.1	124	216	106	26	25	22
MIN	7.2	5.8	5.2	6.3	5.5	5.3	5.9	101	24	11	8.7	8.0
AC-FT	632	461	407	445	354	365	2230	8900	3550	976	684	690

CAL YR 1979 TOTAL 10876.0 MEAN 29.8 MAX 230 MIN 5.2 AC-FT 21570
WTR YR 1980 TOTAL 9925.8 MEAN 27.1 MAX 216 MIN 5.2 AC-FT 19690

06323000 PINEY CREEK AT KEARNY, WY

LOCATION.--Lat 44°32'08", long 106°49'18", in NE¼NE¼SW¼ sec.26, T.53 N., R.83 W., Johnson County, Hydrologic Unit 10090206, on right bank at Kearny, 300 ft (91 m) northeast of Historical Monument and 2.0 mi (3.2 km) upstream from Little Piney Creek.

DRAINAGE AREA.--118 mi^2 (306 km^2).

PERIOD OF RECORD.--September 1902 to June 1906, June to August 1910, May 1911 to July 1917, May 1919 to September 1923 (no winter records), October 1940 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1176: 1944. WSP 1309: 1913(M). WSP 1509: 1906, 1920(M), 1941(M), 1942, 1943(M). WSP 1916: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,655.11 ft (1,418.878 m), National Geodetic Vertical Datum of 1929. Sept. 6, 1902, to June 30, 1906, nonrecording gage at site 50 ft (15 m) upstream at different datum. May 14, 1911, to July 31, 1917, and May 1, 1919, to Sept. 30, 1923, nonrecording gage at site 50 ft (15 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are fair. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft (4.17 hm^3), Willow Park Reservoir, capacity, 4,457 acre-ft (55.0 hm^3), and Kearny Lake, capacity, 1,860 acre-ft (2.29 hm^3). Diversion above station from South Piney Creek into Rock Creek basin for irrigation. Diversions above station for irrigation of about 240 acres (97 hm^2), of which about 90 acres (36 hm^2) are below station. Record includes flow in bypass channel (Spring Creek), 300 ft (91 m) left of main channel.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--40 years (water years 1941-80), 87.7 ft^3/s (2.484 m^3/s), 63,540 acre-ft/yr (78.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,410 ft^3/s (96.6 m^3/s) June 15, 1963, gage height, 6.05 ft (1.844 m), from rating curve extended above 1,800 ft^3/s (51.0 m^3/s); minimum daily, 2.0 ft^3/s (0.057 m^3/s) Oct. 10, 1922.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 372 ft^3/s (10.5 m^3/s) June 13, gage height, 3.07 ft (0.936 m); maximum gage height, 3.65 ft (1.113 m) Feb. 27 (backwater from ice); minimum daily, 2.2 ft^3/s (0.062 m^3/s) Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	35	31	31	30	28	27	136	239	34	12	7.4
2	6.4	32	32	30	30	29	29	132	212	66	13	6.7
3	8.0	34	33	31	30	27	29	132	215	78	14	6.2
4	5.6	35	35	30	30	26	30	148	255	60	13	5.6
5	4.8	34	34	31	30	26	32	200	332	44	10	3.8
6	4.5	31	34	28	29	27	34	170	348	35	6.7	3.5
7	4.5	32	33	27	28	27	33	155	282	23	6.7	3.3
8	5.3	34	33	26	27	27	35	152	227	11	5.9	3.3
9	8.0	31	33	27	30	27	33	173	218	9.8	5.3	3.5
10	11	33	30	29	29	27	35	262	252	10	5.0	2.7
11	6.4	33	28	28	29	28	35	183	300	31	4.8	3.1
12	11	39	29	30	30	28	31	162	348	33	4.5	6.4
13	7.0	42	31	31	30	27	33	134	352	21	4.5	3.3
14	5.9	35	33	33	29	27	43	119	320	24	6.4	2.9
15	5.3	33	32	32	28	28	53	112	332	19	5.6	2.9
16	10	32	29	32	28	27	55	114	282	23	8.0	9.1
17	7.4	32	30	32	30	27	56	114	236	19	7.0	7.0
18	8.8	32	32	31	31	31	61	110	192	22	5.3	3.1
19	8.8	32	32	30	31	27	71	112	165	20	5.3	2.4
20	14	34	32	29	32	26	85	104	152	20	5.9	2.2
21	26	32	31	30	32	27	97	112	160	22	7.4	2.7
22	25	30	30	30	32	27	114	150	221	23	10	7.7
23	26	30	31	32	31	27	121	172	212	21	10	9.8
24	27	31	32	32	30	29	136	152	170	15	9.4	8.4
25	28	32	31	30	30	27	141	215	145	17	9.8	8.8
26	28	32	30	28	32	29	132	112	93	19	9.4	7.7
27	30	31	31	26	33	27	127	132	72	20	9.8	7.0
28	34	29	31	26	31	30	132	197	66	19	10	6.7
29	35	30	30	26	29	28	141	221	51	16	7.7	5.6
30	34	31	30	27	---	31	134	282	30	12	7.4	5.0
31	34	---	31	28	---	29	---	259	---	11	7.7	---
TOTAL	475.6	983	974	913	871	858	2115	4928	6479	797.8	247.5	157.8
MEAN	15.3	32.8	31.4	29.5	30.0	27.7	70.5	159	216	25.7	7.98	5.26
MAX	35	42	35	33	33	31	141	282	352	78	14	9.8
MIN	4.5	29	28	26	27	26	27	104	30	9.8	4.5	2.2
AC-FT	943	1950	1930	1810	1730	1700	4200	9770	12850	1580	491	313

CAL YR 1979 TOTAL 22273.9 MEAN 61.0 MAX 396 MIN 4.5 AC-FT 44180
WTR YR 1980 TOTAL 19799.7 MEAN 54.1 MAX 352 MIN 2.2 AC-FT 39270

06323500 PINEY CREEK AT UCROSS, WY

LOCATION.--Lat 44°33'45", long 106°32'25", in SW¼NW¼SE¼ sec.18, T.53 N., R.80 W., Sheridan County, Hydrologic Unit 10090206, on left bank at Ucross, 140 ft (43 m) upstream from bridge on U.S. Highways 14 and 16, and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--267 mi² (692 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1917 to September 1923 (no winter record), January 1950 to current year.

REVISED RECORDS.--WSP 1176: Drainage area. WSP 1439: 1952.

GAGE.--Water-stage recorder. Datum of gage is 4,066.83 ft (1,239.570 m), National Geodetic Vertical Datum of 1929. May 1917 to Sept. 29, 1923, nonrecording gage and Sept. 30, 1923 to May 5, 1976, water-stage recorder, at site 140 ft (43 m) upstream at present datum.

REMARKS.--Records good except those for winter period and period of no gage-height record, Feb. 22 to Mar. 27, which are poor. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft (4.17 hm³), Willow Park Reservoir, capacity, 4,457 acre-ft (5.50 hm³), Kearny Lake, capacity, 1,860 acre-ft (2.29 hm³), and Lake De Smet, capacity, 135,500 acre-ft (167 hm³). Diversions above station from South Piney Creek into Rock Creek basin for irrigation. Diversions for irrigation of about 9,800 acre (39.7 km²) above station.

AVERAGE DISCHARGE.--30 years (water years 1951-80), 87.9 ft³/s (2.489 m³/s), 63,680 acre-ft/yr (78.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,570 ft³/s (101 m³/s) June 16, 1963, gage height, 7.33 ft (2.234 m); minimum daily, 0.60 ft³/s (0.017 m³/s) Oct. 12-26, 1955, Sept. 28, Oct. 1, 2, 1956.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of June 1, 1929, reached a stage of 10.9 ft (3.32 m) present datum, from information by local resident. Stage may have been affected by backwater from bridge.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 562 ft³/s (15.9 m³/s) June 26, gage height, 3.92 ft (1.195 m) caused by emergency release from Lake DeSmet; maximum gage height, 4.11 ft (1.253 m) sometime during period of Mar. 15-28 (backwater from ice), from recorded range in stage; minimum daily discharge, 3.8 ft³/s (0.11 m³/s) Jan. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	11	12	10	7.0	14	22	16	55	272	316	157
2	18	11	13	10	8.0	15	20	16	64	283	307	150
3	21	8.4	13	9.6	8.0	15	20	28	62	298	296	147
4	24	8.4	14	9.4	8.6	14	20	47	48	283	281	203
5	23	11	13	9.4	8.6	13	21	48	40	251	268	208
6	22	14	13	7.0	8.5	14	23	49	44	216	255	212
7	23	14	12	6.0	8.3	15	24	45	50	192	249	212
8	23	14	12	5.0	8.0	15	19	41	43	173	239	209
9	26	14	11	4.2	8.6	15	19	71	40	168	231	209
10	26	14	10	4.0	8.4	15	23	100	37	166	228	206
11	22	14	9.4	4.0	8.4	16	26	98	32	128	212	212
12	14	15	9.4	4.0	8.6	16	22	91	38	133	198	226
13	14	15	9.6	4.2	8.2	16	20	74	43	128	193	235
14	13	16	10	4.6	7.8	16	20	77	40	168	221	201
15	12	15	10	4.6	7.6	16	22	81	54	216	247	194
16	13	15	9.4	4.6	7.6	17	23	49	53	276	222	211
17	18	14	10	4.6	9.0	18	22	29	45	271	216	311
18	15	13	11	4.2	11	19	19	25	36	301	201	303
19	12	13	11	4.0	13	18	19	21	30	309	199	291
20	11	13	10	3.8	13	18	18	42	31	315	197	274
21	16	13	10	4.0	13	20	17	61	29	301	186	139
22	26	13	10	4.2	12	25	16	71	31	324	192	134
23	26	13	11	4.5	12	30	16	104	37	332	190	139
24	18	14	11	4.5	11	26	15	74	34	334	184	133
25	9.2	12	10	4.3	11	24	14	102	31	356	176	153
26	8.0	11	9.6	4.2	13	21	14	86	436	343	171	152
27	7.1	12	10	4.1	14	20	14	70	485	343	166	114
28	6.2	12	10	4.0	16	20	14	65	368	356	166	113
29	9.2	11	9.2	4.0	15	20	13	65	332	357	160	112
30	10	12	9.4	4.3	---	23	14	55	283	335	157	104
31	8.8	---	10	4.5	---	24	---	50	---	301	158	---
TOTAL	511.5	385.8	333.0	163.8	293.2	568	569	1852	2951	8229	6682	5664
MEAN	16.5	12.9	10.7	5.28	10.1	18.3	19.0	59.7	98.4	265	216	189
MAX	26	16	14	10	16	30	26	104	485	357	316	311
MIN	6.2	8.4	9.2	3.8	7.0	13	13	16	29	128	157	104
AC-FT	1010	765	661	325	582	1130	1130	3670	5850	16320	13250	11230

CAL YR 1979 TOTAL 12064.3 MEAN 33.1 MAX 140 MIN 6.2 AC-FT 23930
WTR YR 1980 TOTAL 28202.3 MEAN 77.1 MAX 485 MIN 3.8 AC-FT 55940

06323500 PINEY CREEK AT UCROSS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to September 1980 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 17...	1500	--	21	660	8.2	12.0	2	10.0	48	280
NOV 08...	1430	--	14	1020	8.2	3.0	2	12.2	K4	440
DEC 06...	1240	13	--	1030	8.0	1.0	5	12.4	K11	430
JAN 16...	1440	4.6	--	780	7.8	1.0	10	12.2	K32	330
FEB 20...	1430	13	--	980	7.7	.5	15	11.0	21	390
APR 16...	0930	--	24	1160	8.2	8.0	3	10.2	K13	480
MAY 13...	1200	--	70	430	8.6	9.5	4	10.2	46	160
JUN 12...	1130	--	39	580	8.3	19.0	--	8.6	130	200
JUL 09...	1130	--	168	720	8.2	18.0	9	9.2	92	300
AUG 05...	1030	--	276	800	8.3	18.0	5	9.0	36	310
SEP 04...	1215	--	210	750	9.0	14.0	7	9.7	86	300

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 17...	94	66	29	33	.9	5.3	190	150	2.6
NOV 08...	200	98	48	70	1.4	7.2	240	330	3.9
DEC 06...	170	98	46	63	1.3	7.1	260	310	4.0
JAN 16...	150	73	35	47	1.1	15	180	260	5.4
FEB 20...	180	88	42	53	1.2	16	210	280	6.2
APR 16...	230	100	56	74	1.5	8.2	250	370	4.5
MAY 13...	65	38	17	21	.7	2.9	100	110	1.1
JUN 12...	73	45	22	29	.9	3.7	130	130	1.5
JUL 09...	150	72	28	35	.9	5.2	150	210	2.4
AUG 05...	160	77	28	36	.9	5.3	150	260	2.6
SEP 04...	160	74	28	36	.9	5.9	140	250	3.1

06323500 PINEY CREEK AT UCROSS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)
OCT 17...	.2	8.4	409	.56	23.2	.04	.100	.12	.85
NOV 08...	.3	11	713	.97	27.0	.05	.050	.06	.50
DEC 06...	.2	11	696	.95	24.4	.03	.020	.02	.82
JAN 16...	.2	12	556	.76	6.91	.40	.300	.36	2.1
FEB 20...	.2	13	625	.85	21.9	.82	.780	.94	2.5
APR 16...	.3	5.7	769	1.05	49.8	.01	.000	.00	.81
MAY 13...	.1	8.7	259	.35	49.0	.01	.010	.01	.44
JUN 12...	.1	7.4	317	.43	33.4	.04	.010	.01	1.1
JUL 09...	.2	4.0	447	.61	203	.02	.040	.05	.88
AUG 05...	.3	3.7	503	.68	375	.00	.030	.04	.97
SEP 04...	.2	3.2	485	.66	275	.00	.010	.01	.68

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
OCT 17...	.95	.99	4.4	.020	.06	9.0	.3	--	--
NOV 08...	.55	.60	2.7	.010	.03	--	--	--	--
DEC 06...	.84	.87	3.9	.000	.00	--	--	--	--
JAN 16...	2.4	2.8	12	.200	.61	--	--	--	--
FEB 20...	3.3	4.1	18	.700	2.1	--	--	.00	16
APR 16...	.81	.82	3.6	.040	.12	--	--	--	1
MAY 13...	.45	.46	2.0	.020	.06	6.2	.4	--	1
JUN 12...	1.1	1.1	5.0	.210	.64	--	--	.00	6
JUL 09...	.92	.94	4.2	.010	.03	--	--	--	23
AUG 05...	1.0	1.0	4.4	.040	.12	--	--	--	2
SEP 04...	.69	.69	3.1	.050	.15	--	--	--	4

06323500 PINEY CREEK AT UCROSS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT 17...	1500	80	80	0	0	0	0	0	0	<1	70	0
NOV 08...	1430	--	--	--	--	--	--	--	--	--	50	--
DEC 06...	1240	--	--	--	--	--	--	--	--	--	80	--
JAN 16...	1440	--	--	--	--	--	--	--	--	--	140	--
FEB 20...	1430	--	--	--	--	--	--	--	--	--	130	--
APR 16...	0930	--	--	--	--	--	--	--	--	--	100	--
MAY 13...	1200	160	150	10	1	0	1	0	--	<1	50	0
JUN 12...	1130	--	--	--	--	--	--	--	--	--	90	--
JUL 09...	1130	--	--	--	--	--	--	--	--	--	50	--
AUG 05...	1030	--	--	--	--	--	--	--	--	--	80	--
SEP 04...	1215	--	--	--	--	--	--	--	--	--	70	--

DATE	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
OCT 17...	0	2	0	0	0	1	1	0	100	--	60	0
NOV 08...	--	--	--	--	--	--	--	--	--	--	190	--
DEC 06...	--	--	--	--	--	--	--	--	--	--	170	--
JAN 16...	--	--	--	--	--	--	--	--	--	--	170	--
FEB 20...	--	--	--	--	--	--	--	--	--	--	110	--
APR 16...	--	--	--	--	--	--	--	--	--	--	110	--
MAY 13...	--	<1	0	0	0	2	0	2	370	350	20	3
JUN 12...	--	--	--	--	--	--	--	--	--	--	70	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	20	--
AUG 05...	--	--	--	--	--	--	--	--	--	--	10	--
SEP 04...	--	--	--	--	--	--	--	--	--	--	<10	--

06323500 PINEY CREEK AT UCROSS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)
OCT 17...	0	0	10	0	30	20	10	10	.1	.1	.0	0
NOV 08...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 16...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	3	0	10	0	10	40	30	10	.0	.0	.0	0
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 05...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 04...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 17...	0	<10	0	0	2	0	0	0	1.0	0	0	8
NOV 08...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 16...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--
APR 16...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	<10	4	0	7	0	0	0	1.0	30	--	<3
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 05...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 04...	--	--	--	--	--	--	--	--	--	--	--	--

06323500 PINEY CREEK AT UCROSS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 17...	1500	.00	0	.00	.0	.00	0	.00	.0
MAY 13...	1200	.09	0	.00	.0	.00	0	.00	.0
JUN 12...	1130	.04	0	.00	.0	.00	0	.00	.0
JUL 09...	1130	.00	0	.00	.0	.00	0	.00	.0
AUG 05...	1030	.00	0	.00	.0	.00	0	.00	.0
SEP 04...	1215	--	0	--	.0	--	0	--	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
OCT 17...	.00	.0	.00	.0
MAY 13...	.00	.0	.00	.0
JUN 12...	.00	.0	.03	.0
JUL 09...	.00	.0	.00	.0
AUG 05...	.00	.0	.00	.0
SEP 04...	--	.0	--	.0

06324000 CLEAR CREEK NEAR ARVADA, WY

LOCATION.--Lat 44°52'18", long 106°04'56", in SE¼ sec.36, T.57 N., R.77 W., Sheridan County, Hydrologic Unit 10090206, on right bank 600 ft (183 m) downstream from Cabin Creek, 1.8 mi (2.9 km) upstream from mouth, and 16 mi (26 km) north of Arvada.

DRAINAGE AREA.--1,110 mi^2 (2,875 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1915 to April 1919 and April 1928 to May 1929 (no winter records), September 1939 to current year.

REVISED RECORDS.--WSP 1309: 1928(M).

GAGE.--Water-stage recorder. Datum of gage is 3,506.51 ft (1,068.784 m), National Geodetic Vertical Datum of 1929. July 21, 1915, to Apr. 30, 1919, nonrecording gage at same site at different datum. Apr. 15, 1928, to May 26, 1929, nonrecording gage at site 0.2 mi (0.3 km) upstream at different datum. Sept. 13, 1939, to Jan. 14, 1951, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft (4.17 hm^3), Willow Park Reservoir, capacity, 4,457 acre-ft (5.50 hm^3), Kearny Lake, capacity, 1,860 acre-ft (2.29 hm^3) and Lake De Smet, capacity, 135,500 acre-ft (167 hm^3). Diversions for irrigation of about 35,000 acres (142 km^2) above station. Diversion to Kendrick canal about 4.5 mi (7.2 km) upstream.

AVERAGE DISCHARGE.--41 years (water years 1940-80), 181 ft^3/s (5.126 m^3/s), 131,100 acre-ft/yr (162 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,600 ft^3/s (272 m^3/s) Aug. 5, 1954, gage height, 10.45 ft (3.185 m), from rating curve extended above 2,500 ft^3/s (70.8 m^3/s) on basis of slope-area measurement at gage height 10.17 ft (3.100 m); no flow July 22, 1954, May 8-29, Sept. 6-9, 1960, July 5, Aug. 26-28, Aug. 31 to Sept. 6, 1961, Aug. 7-10, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 665 ft^3/s (18.8 m^3/s) Aug. 15, gage height, 3.39 ft (1.033 m); maximum gage height, 4.00 ft (1.219 m) Mar. 1 (backwater from ice); minimum daily, 2.5 ft^3/s (.071 m^3/s) May 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	71	36	27	21	43	55	27	130	238	196	160
2	60	63	36	26	22	40	60	29	130	246	216	160
3	66	53	37	26	23	40	58	29	140	304	218	159
4	66	53	38	26	25	39	55	20	130	311	217	158
5	64	52	41	25	25	37	52	6.6	125	286	212	201
6	68	50	44	23	24	42	50	36	115	244	197	213
7	71	49	42	22	24	43	49	29	120	214	192	214
8	71	47	43	21	23	44	49	16	130	188	182	210
9	84	47	44	21	25	47	49	2.5	120	157	177	204
10	85	47	43	22	24	50	44	4.4	110	152	172	204
11	85	47	40	22	23	54	43	98	109	141	172	204
12	89	46	39	23	24	54	43	107	111	103	163	205
13	82	42	38	24	23	54	44	101	194	91	159	202
14	61	40	40	25	23	54	43	91	283	85	167	251
15	50	43	39	25	23	54	40	82	244	89	379	224
16	50	46	30	25	21	52	42	85	280	151	278	225
17	49	47	29	24	23	53	41	77	188	166	247	239
18	49	46	30	23	25	56	42	39	150	186	243	331
19	57	47	30	22	30	58	40	16	123	214	225	331
20	57	46	30	21	33	60	34	3.8	77	211	226	316
21	55	47	30	22	36	70	34	3.0	65	220	213	304
22	53	39	30	22	36	84	33	3.0	61	216	203	210
23	55	40	31	23	36	96	35	2.8	115	213	203	193
24	63	41	31	23	39	86	35	123	135	216	200	194
25	63	42	30	25	41	84	34	310	71	219	194	193
26	60	40	29	22	42	80	32	352	47	223	184	203
27	64	38	29	20	45	66	29	268	278	222	177	205
28	60	36	29	20	47	60	28	184	360	214	173	172
29	53	35	27	19	44	55	28	203	302	225	173	161
30	53	35	27	19	---	55	27	195	281	220	162	155
31	53	---	27	20	---	53	---	216	---	214	159	---
TOTAL	1948	1375	1069	708	850	1763	1248	2759.1	4724	6179	6279	6401
MEAN	62.8	45.8	34.5	22.8	29.3	56.9	41.6	89.0	157	199	203	213
MAX	89	71	44	27	47	96	60	352	360	311	379	331
MIN	49	35	27	19	21	37	27	2.5	47	85	159	155
AC-FT	3860	2730	2120	1400	1690	3500	2480	5470	9370	12260	12450	12700

CAL YR 1979 TOTAL 26016.0 MEAN 71.3 MAX 496 MIN 17 AC-FT 51600
WTR YR 1980 TOTAL 35303.1 MEAN 96.5 MAX 379 MIN 2.5 AC-FT 70020

06324000 CLEAR CREEK NEAR ARVADA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-54, 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 12...	1300	--	91	1230	8.3	11.5	5	9.9	44	560
NOV 08...	1030	--	49	1540	8.2	1.0	2	12.8	K11	590
DEC 06...	0910	44	--	1950	8.0	1.0	7	13.0	K4	850
JAN 10...	1140	22	--	1900	7.6	.0	20	10.8	K7	970
FEB 22...	1000	36	--	990	7.7	.5	45	12.9	K64	370
APR 17...	0930	--	40	1830	8.2	10.0	8	10.0	58	750
MAY 15...	1120	--	78	950	8.3	15.0	15	9.4	66	370
JUN 10...	1600	--	113	790	8.8	25.0	--	8.9	--	320
JUL 08...	1630	--	186	900	8.2	25.0	25	8.8	48	390
AUG 04...	1700	--	218	1000	8.6	19.0	20	8.7	--	440
SEP 03...	1830	--	156	1070	8.6	19.0	25	9.3	28	470

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 12...	350	130	57	74	1.4	5.3	260	0	210	510
NOV 08...	340	130	64	87	1.6	5.5	300	0	250	520
DEC 06...	530	200	87	150	2.2	7.3	390	0	320	780
JAN 10...	580	230	99	170	2.4	7.5	480	0	390	880
FEB 22...	210	86	38	97	2.2	11	190	0	160	380
APR 17...	470	150	94	140	2.2	9.0	340	0	280	770
MAY 15...	210	76	43	61	1.4	2.6	190	0	160	350
JUN 10...	180	71	35	49	1.2	2.8	170	0	140	280
JUL 08...	220	97	35	46	1.0	9.0	200	0	160	300
AUG 04...	260	100	45	54	1.1	1.6	220	0	180	350
SEP 03...	280	98	55	48	1.0	4.8	230	0	190	390

06324000 CLEAR CREEK NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
OCT 12...	5.2	.4	4.1	915	1.24	225	12	.08	.10	.070
NOV 08...	4.3	.5	5.6	967	1.32	128	0	.42	.30	.080
DEC 06...	6.0	.5	8.8	1430	1.94	170	7	.46	.87	.110
JAN 10...	7.3	.5	11	1650	2.24	98.0	27	.85	.77	.120
FEB 22...	6.9	.4	8.0	737	1.00	71.6	68	.73	3.6	.210
APR 17...	6.3	.5	2.1	1340	1.82	145	9	.03	.03	.150
MAY 15...	2.6	.4	7.0	637	.87	134	55	.06	.07	.120
JUN 10...	2.3	.7	6.6	530	.72	162	19	.01	.00	.110
JUL 08...	3.0	.3	13	602	.82	302	--	.02	.00	.010
AUG 04...	5.1	.4	4.3	670	.91	394	56	.01	.00	.050
SEP 03...	3.0	.5	4.0	710	.97	299	31	.00	.08	.030

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
OCT 12...	.08	.53	.60	.68	3.0	.020	5.5	.3	--	--
NOV 08...	.10	.49	.57	.99	4.4	.000	--	--	--	--
DEC 06...	.13	.67	.78	1.2	5.5	.050	--	--	--	--
JAN 10...	.15	2.3	2.4	3.3	14	.050	--	--	--	--
FEB 22...	.25	3.1	3.3	4.0	18	.260	--	--	.00	18
APR 17...	.18	1.2	1.3	1.3	5.9	.100	--	--	--	0
MAY 15...	.15	1.1	1.2	1.3	5.6	.020	8.5	.8	.00	2
JUN 10...	.13	1.5	1.6	1.6	7.1	.040	--	--	--	11
JUL 08...	.01	.82	.83	.85	3.8	.060	--	--	--	0
AUG 04...	.06	1.1	1.1	1.1	4.9	.080	--	--	--	1
SEP 03...	.04	.82	.85	.85	3.8	.020	--	--	--	6

06324000 CLEAR CREEK NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT 12...	1300	130	130	0	1	0	1	0	0	<1	140	0
NOV 08...	1030	--	--	--	--	--	--	--	--	--	130	--
DEC 06...	0910	--	--	--	--	--	--	--	--	--	220	--
JAN 10...	1140	--	--	--	--	--	--	--	--	--	200	--
FEB 22...	1000	--	--	--	--	--	--	--	--	--	120	--
APR 17...	0930	--	--	--	--	--	--	--	--	--	170	--
MAY 15...	1120	340	320	20	1	0	1	0	--	<1	110	4
JUN 10...	1600	--	--	--	--	--	--	--	--	--	120	--
JUL 08...	1630	--	--	--	--	--	--	--	--	--	100	--
AUG 04...	1700	--	--	--	--	--	--	--	--	--	140	--
SEP 03...	1830	--	--	--	--	--	--	--	--	--	120	--

DATE	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
OCT 12...	0	<1	10	0	10	0	0	4	290	--	<10	2
NOV 08...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 06...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 10...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 22...	--	--	--	--	--	--	--	--	--	--	--	--
APR 17...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 15...	2	2	0	0	0	7	3	4	1100	1100	20	3
JUN 10...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 04...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 03...	--	--	--	--	--	--	--	--	--	--	--	--

06324000 CLEAR CREEK NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM SUS-PENDED RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)
OCT												
12...	2	0	20	0	30	40	20	20	.4	.4	.0	0
NOV												
08...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
06...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
10...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
22...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
17...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
15...	3	0	20	0	20	120	80	40	.0	.0	.0	1
JUN												
10...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
08...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
04...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
03...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MOLYB-DENUM, SUS-PENDED RECOV. (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT												
12...	0	<10	0	0	4	1	0	1	<1.0	10	7	<3
NOV												
08...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
06...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
10...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
22...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
17...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
15...	1	0	10	7	3	1	0	1	.0	30	20	8
JUN												
10...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
08...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
04...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
03...	--	--	--	--	--	--	--	--	--	--	--	--

06324000 CLEAR CREEK NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 12...	1300	.00	0	.00	.0	.00	0	.00	.0
MAY 15...	1120	.11	0	.00	.0	.00	0	.00	.0
JUN 10...	1600	.02	0	.00	.0	.00	0	.00	.0
JUL 08...	1630	.03	0	.00	.0	.00	0	.00	.0
AUG 04...	1700	.00	0	.00	.0	.00	0	.00	.0
SEP 03...	1830	.00	0	.00	.0	.03	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
OCT 12...	.00	.0	.01	.0
MAY 15...	.00	.0	.08	.0
JUN 10...	.00	.0	.10	.0
JUL 08...	.00	.0	.04	.0
AUG 04...	.00	.0	.00	.0
SEP 03...	.00	.0	.07	.0

06324000 CLEAR CREEK NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM
OCT											
02...	1415	13.0	--	68	24	4.4	--	--	--	--	--
NOV											
01...	1520	3.5	--	78	17	3.6	--	--	--	--	--
DEC											
04...	1630	.5	38	--	37	3.8	--	--	--	--	--
JAN											
04...	1400	.0	26	--	66	4.6	--	--	--	--	--
FEB											
20...	1310	.0	33	--	26	2.3	--	--	--	--	--
APR											
02...	1745	7.0	--	64	31	5.4	--	--	--	--	--
MAY											
01...	1530	20.0	--	28	87	6.6	--	--	--	--	--
26...	1930	16.5	--	438	--	--	38	68	95	99	100
JUN											
10...	1600	25.0	--	113	44	13	--	--	--	--	--
JUL											
08...	1630	25.0	--	186	108	54	--	--	--	--	--
AUG											
04...	1700	19.0	--	218	108	64	--	--	--	--	--
SEP											
03...	1830	19.0	--	156	86	36	--	--	--	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
OCT											
02...	--	--	--	--	--	--	--	--	--	--	--
NOV											
01...	--	--	--	--	--	--	--	--	--	--	--
DEC											
04...	--	--	--	--	--	--	--	--	--	--	--
JAN											
04...	--	--	--	--	--	--	--	--	--	--	--
FEB											
20...	--	--	--	--	--	--	--	--	--	--	--
APR											
02...	--	--	--	--	--	--	--	--	--	--	--
MAY											
01...	--	--	--	--	--	--	--	--	--	--	--
26...	3	5	11	21	24	29	36	48	65	76	100
JUN											
10...	1	2	3	6	8	9	12	19	34	91	100
JUL											
08...	--	--	--	--	--	--	--	--	--	--	--
AUG											
04...	--	--	--	--	--	--	--	--	--	--	--
SEP											
03...	2	6	40	50	51	52	52	54	57	80	100

06324500 POWDER RIVER AT MOORHEAD, MT

LOCATION.--Lat 45°04'04", long 105°52'10", in NW¼SE¼NW¼ sec.8, T.9 S., R.48 E., Powder River County, Hydrologic Unit 10090207, on left bank 500 ft (152 m) downstream from discontinued post office at Moorhead, 6.2 mi (10.0 km) upstream from Buffalo Creek, and at mile 184.8 (297.3 km).

DRAINAGE AREA.--8,088 mi^2 (20,948 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1929 to September 1972, October 1974 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1932(M). WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,334.6 ft (1,016.39 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Aug. 28, 1931, nonrecording gage at site 0.3 mi (0.5 km) upstream at different datum. Aug. 28, 1931, to Mar. 21, 1956, water-stage recorder at site 1.2 mi (1.9 km) upstream at different datum. Mar. 22 to July 24, 1956, nonrecording gage at site 0.3 mi (0.5 km) downstream at different datum. July 25 to Sept. 12, 1956, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records good except those for winter period, which are poor. Some regulation by three reservoirs in Wyoming with combined usable capacity of 36,800 acre-ft (45.4 hm^3). Diversions for irrigation of about 66,300 acres (268 km^2) above station.

AVERAGE DISCHARGE.--49 years, 463 ft^3/s (13.11 m^3/s), 335,400 acre-ft/yr (414 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,000 ft^3/s (651 m^3/s) June 17, 1962, gage height, 12.77 ft (3.892 m), from graph based on gage readings, from rating curve extended above 7,000 ft^3/s (198 m^3/s) on basis of slope-area measurement of peak flow; maximum gage height, 17.7 ft (5.39 m) Mar. 21, 1956, site and datum then in use (ice jam); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 30, 1923, reached a stage of 19 ft (5.8 m), site and datum used 1931-56, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,210 ft^3/s (62.6 m^3/s) May. 27, no peaks above base of 3,700 ft^3/s (105 m^3/s); maximum gage height, 5.70 ft (1.737 m) Feb. 26 (backwater from ice); minimum discharge, 90 ft^3/s (2.55 m^3/s) Jan. 28-31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	262	114	150	110	500	338	344	556	323	226	213
2	92	276	112	150	140	300	337	338	590	296	220	226
3	105	270	110	140	150	260	323	329	607	330	233	248
4	109	262	112	130	160	250	330	338	765	352	233	220
5	123	262	116	130	160	230	323	366	615	345	226	226
6	128	248	128	120	150	220	316	366	534	303	213	276
7	139	240	108	110	140	230	303	351	508	270	200	262
8	142	240	120	110	130	240	310	332	477	240	193	262
9	168	248	120	110	140	250	323	338	452	213	187	226
10	187	255	105	108	140	270	345	347	424	193	187	233
11	187	262	100	100	130	300	316	402	409	187	187	233
12	193	276	112	120	140	300	296	433	382	162	180	240
13	200	270	110	135	125	320	289	416	366	124	174	233
14	193	255	113	130	100	340	296	485	508	119	187	255
15	180	248	110	130	96	320	276	794	439	124	345	283
16	193	255	96	120	96	310	270	660	669	150	687	262
17	193	255	110	118	110	320	270	624	734	168	802	276
18	193	255	120	110	120	340	255	498	461	213	915	316
19	220	248	120	100	160	330	255	409	651	220	616	352
20	226	248	118	100	156	320	248	352	477	233	485	330
21	248	200	118	110	160	400	240	316	565	240	439	330
22	255	190	118	118	168	500	233	310	359	233	359	289
23	240	156	110	128	300	580	248	295	296	226	330	240
24	248	119	110	140	700	462	409	289	283	226	303	233
25	248	120	118	120	900	394	454	541	316	233	270	233
26	248	120	123	100	1100	380	454	599	248	233	248	240
27	240	119	120	95	1000	352	454	1750	240	233	233	248
28	255	114	110	90	980	338	394	1190	462	226	220	233
29	255	118	110	90	800	338	380	852	387	233	220	220
30	262	118	120	90	---	338	352	678	366	233	213	213
31	262	---	128	90	---	323	---	633	---	240	200	---
TOTAL	6028	6509	3539	3592	8761	10355	9637	15975	14146	7121	9731	7651
MEAN	194	217	114	116	302	334	321	515	472	230	314	255
MAX	262	276	128	150	1100	580	454	1750	765	352	915	352
MIN	92	114	96	90	96	220	233	289	240	119	174	213
AC-FT	11960	12910	7020	7120	17380	20540	19110	31690	28060	14120	19300	15180

CAL YR 1979 TOTAL 114019 MEAN 312 MAX 2200 MIN 54 AC-FT 226200
WTR YR 1980 TOTAL 103045 MEAN 282 MAX 1750 MIN 90 AC-FT 204400

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge on county road, 1.1 mi (1.8 km) upstream from discontinued post office at Moorhead, 1.2 mi (1.9 km) upstream from discharge station.

PERIOD OF RECORD.--Water years 1951-53, 1956-57, 1969-72, 1975 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: February 1951 to September 1953, October 1955 to September 1957, October 1974-77, March to September 1978, March to September 1979, April to September 1980.
SUSPENDED SEDIMENT DISCHARGE: October 1974-77, March to September 1978, March to September 1979, April to September 1980.

REMARKS.--Flow regulated by reservoirs and diversions for irrigation upstream from station. Flow affected by ice during most of winter months.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 32.0°C July 7, 1951, July 23, 1980; minimum daily, 0.0°C on many days during winter periods most years.
SEDIMENT CONCENTRATIONS: Maximum daily, 53,500 mg/L May 27, 1980; minimum daily, 5 mg/L Sept. 15, 1975.
SEDIMENT LOADS: Maximum daily, 2,230,000 tons (2,023,000 tonnes) May 20, 1978; minimum daily, 0.24 ton (0.22 tonne) Sept. 15, 1975.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily, 32.0°C July 23.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 53,500 mg/L May 27; minimum daily mean, 63 mg/L Aug. 13.
SEDIMENT LOADS: Maximum daily, 272,000 tons (247,000 tonnes) May 27; minimum daily, 30 tons (27 tonnes) Aug. 13.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT 12...	1530	--	193	2450	8.5	11.0	10.2	640	410	130	76	290
NOV 08...	1200	--	240	2550	8.4	1.5	12.4	630	380	140	69	320
DEC 06...	1040	128	--	2500	8.0	1.0	10.4	700	420	150	79	310
JAN 10...	1000	108	--	3100	7.9	.0	12.8	870	500	200	91	430
FEB 22...	1200	168	--	1460	7.7	.5	11.4	370	210	85	39	180
APR 17...	1150	--	270	2930	8.3	12.0	9.7	720	490	160	77	410
MAY 15...	1400	--	863	2130	8.2	17.0	8.0	480	290	110	49	260
JUN 10...	1130	--	416	1550	8.4	22.0	8.2	420	240	100	42	200
JUL 08...	1300	--	240	1400	8.2	24.5	8.8	420	240	96	44	140
AUG 04...	1230	--	233	1100	8.8	17.0	8.6	410	220	95	42	77
SEP 03...	1400	--	248	2100	8.5	18.0	8.2	600	430	140	60	220

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SODIUM AD-SORP-TION RATIO	SODIUM+ POTAS-SIUM DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	IODIDE, DIS-SOLVED (MG/L AS I)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT 12...	5.0	300	8.5	230	730	210	.4	--	--	20	1600	2.18
NOV 08...	5.5	330	7.6	250	690	220	.5	.9	.60	8.1	1610	2.19
DEC 06...	5.1	320	6.9	280	800	200	.4	--	--	9.0	1720	2.34
JAN 10...	6.3	440	8.8	370	900	330	.7	1.2	.12	14	2200	2.99
FEB 22...	4.1	190	9.6	160	400	110	.3	--	--	9.5	930	1.26
APR 17...	6.7	--	8.4	230	980	210	.8	1.0	.08	7.8	1990	2.71
MAY 15...	5.2	--	7.0	190	600	200	.5	1.0	.09	5.7	1350	1.84
JUN 10...	4.2	--	6.2	180	550	88	.5	--	--	8.9	1100	1.50
JUL 08...	3.0	--	6.9	180	450	61	.4	.1	.26	6.0	913	1.24
AUG 04...	1.7	--	6.4	190	390	15	.3	--	--	4.1	744	1.01
SEP 03...	3.9	--	9.6	170	680	140	.4	--	--	5.3	1360	1.85

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)
OCT 12...	834	.11	.040	.05	.96	1.0	1.1	4.9	.330	1.0	--	--
NOV 08...	1040	.35	.240	.29	1.8	2.0	2.4	10	.480	1.5	--	.7
DEC 06...	594	.36	.140	.17	.79	.93	1.3	5.7	.140	.43	--	--
JAN 10...	642	.59	.170	.21	1.0	1.2	1.8	7.9	.090	.28	8.9	.5
FEB 22...	422	.53	.070	.08	2.3	2.4	2.9	13	.270	.83	--	--
APR 17...	1450	1.7	.360	.44	2.3	2.7	4.4	19	.820	2.5	6.6	3.0
MAY 15...	3150	.32	.180	.22	9.7	9.9	10	45	5.200	16	14	--
JUN 10...	1240	.31	.040	.05	3.6	3.6	3.9	17	1.300	4.0	--	--
JUL 08...	592	.00	.000	.00	1.3	1.3	1.3	5.8	.110	.34	13	--
AUG 04...	468	.21	.040	.05	.95	.99	1.2	5.3	.080	.25	--	--
SEP 03...	911	.12	.050	.06	1.7	1.7	1.8	8.1	.590	1.8	--	--

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BERYL-LIUM, SUS-PENDED RECOV. (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)
OCT 12...	1530	--	--	--	--	--	--	390	--	--
NOV 08...	1200	4	3	1	0	0	0	330	1	0
DEC 06...	1040	--	--	--	--	--	--	350	--	--
JAN 10...	1000	--	--	--	--	--	--	510	--	--
FEB 22...	1200	--	--	--	--	--	--	300	--	--
APR 17...	1150	--	--	--	--	--	--	440	--	--
MAY 15...	1400	24	23	1	10	10	0	340	5	4
JUN 10...	1130	--	--	--	--	--	--	220	--	--
JUL 08...	1300	--	--	--	--	--	--	160	--	--
AUG 04...	1230	--	--	--	--	--	--	120	--	--
SEP 03...	1400	--	--	--	--	--	--	280	--	--

DATE	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
OCT 12...	--	--	--	--	--	--	--	--	--	30
NOV 08...	1	12	12	0	20	17	3	22000	--	70
DEC 06...	--	--	--	--	--	--	--	--	--	180
JAN 10...	--	--	--	--	--	--	--	--	--	30
FEB 22...	--	--	--	--	--	--	--	--	--	150
APR 17...	--	--	--	--	--	--	--	--	--	80
MAY 15...	1	130	130	0	250	250	4	220000	220000	120
JUN 10...	--	--	--	--	--	--	--	--	--	40
JUL 08...	--	--	--	--	--	--	--	--	--	<10
AUG 04...	--	--	--	--	--	--	--	--	--	<10
SEP 03...	--	--	--	--	--	--	--	--	--	<10

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)
OCT									
12...	--	--	--	--	--	--	--	--	--
NOV									
08...	13	13	0	400	400	0	.1	.1	.0
DEC									
06...	--	--	--	--	--	--	--	--	--
JAN									
10...	--	--	--	--	--	--	--	--	--
FEB									
22...	--	--	--	--	--	--	--	--	--
APR									
17...	--	--	--	--	--	--	--	--	--
MAY									
15...	170	170	0	4000	4000	10	.4	.4	.0
JUN									
10...	--	--	--	--	--	--	--	--	--
JUL									
08...	--	--	--	--	--	--	--	--	--
AUG									
04...	--	--	--	--	--	--	--	--	--
SEP									
03...	--	--	--	--	--	--	--	--	--

DATE	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
12...	--	--	--	--	--	--	--	--	--
NOV									
08...	23	23	0	3	1	2	150	140	10
DEC									
06...	--	--	--	--	--	--	--	--	--
JAN									
10...	--	--	--	--	--	--	--	--	--
FEB									
22...	--	--	--	--	--	--	--	--	--
APR									
17...	--	--	--	--	--	--	--	--	--
MAY									
15...	200	200	3	9	7	2	860	850	10
JUN									
10...	--	--	--	--	--	--	--	--	--
JUL									
08...	--	--	--	--	--	--	--	--	--
AUG									
04...	--	--	--	--	--	--	--	--	--
SEP									
03...	--	--	--	--	--	--	--	--	--

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	PCB TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)
OCT												
12...	1530	.00	0	.00	.0	.0	0	.00	.0	.00	.0	.00

DATE	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)
OCT												
12...	.0	.00	.00	.0	.00	.0	.00	.0	.00	.00	.0	.00

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)
OCT												
12...	.0	.00	.0	.00	.00	.0	.00	.00	.00	.0	.00	.00

DATE	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL (UG/L)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT												
12...	.00	0	0	.00	.00	0	.01	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
OCT				
12...	.00	.0	.01	.0

DATE	TIME	TEMPERATURE, WATER (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR											
02...	1000	4.0	338	1650	1510	60	87	96	99	100	--
MAY											
01...	1030	14.5	338	2130	1940	61	88	96	99	100	--
JUN											
10...	1100	22.0	416	2590	2910	59	78	88	97	100	--
SEP											
03...	1400	18.0	248	1280	857	--	--	--	--	--	95

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	19.0	22.0	25.0	27.0	20.0
2							4.0	19.0	18.0	26.0	27.0	24.0
3							6.0	22.0	24.0	26.0	18.0	19.0
4							12.0	21.0	25.0	26.0	14.0	21.0
5							12.0	22.0	24.0	27.0	26.0	24.0
6							14.0	21.0	17.0	29.0	27.0	19.0
7							7.0	20.0	18.0	25.0	24.0	23.0
8							11.0	19.0	20.0	28.0	18.0	16.0
9							12.0	18.0	27.0	28.0	25.0	20.0
10							10.0	15.0	26.0	31.0	24.0	23.0
11							10.0	15.0	28.0	29.0	29.0	17.0
12							10.0	15.0	26.0	24.0	24.0	19.0
13							14.0	16.0	28.0	24.0	22.0	19.0
14							17.0	19.0	25.0	22.0	24.0	23.0
15							13.0	18.0	20.0	26.0	18.0	14.0
16							16.0	18.0	24.0	29.0	19.0	17.0
17							19.0	19.0	24.0	27.0	23.0	19.0
18							18.0	18.0	25.0	27.0	25.0	19.0
19							16.0	20.0	20.0	26.0	17.0	16.0
20							24.0	14.0	27.0	24.0	20.0	21.0
21							22.0	26.0	25.0	27.0	23.0	15.0
22							19.0	27.0	28.0	31.0	22.0	17.0
23							15.0	25.0	27.0	32.0	24.0	14.0
24							18.0	21.0	25.0	26.0	27.0	14.0
25							17.0	19.0	29.0	26.0	20.0	14.0
26							15.0	20.0	31.0	27.0	14.0	18.0
27							19.0	20.0	22.0	28.0	23.0	18.0
28							21.0	21.0	22.0	30.0	24.0	10.0
29							20.0	17.0	25.0	28.0	22.0	20.0
30							18.0	16.0	22.0	28.0	18.0	20.0
31							---	18.0	---	29.0	18.0	---
MEAN							15.0	19.5	24.0	27.0	22.0	18.5

WTR YR 1980 MEAN 21.0 MAX 32.0 MIN 4.0

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	96			262			114		
2	92			276			112		
3	105			270			110		
4	109			262			112		
5	123			262			116		
6	128			248			128		
7	139			240			108		
8	142			240			120		
9	168			248			120		
10	187			255			105		
11	187			262			100		
12	193			276			112		
13	200			270			110		
14	193			255			113		
15	180			248			110		
16	193			255			96		
17	193			255			110		
18	193			255			120		
19	220			248			120		
20	226			248			118		
21	248			200			118		
22	255			190			118		
23	240			156			110		
24	248			119			110		
25	248			120			118		
26	248			120			123		
27	240			119			120		
28	255			114			110		
29	255			118			110		
30	262			118			120		
31	262			---			128		
TOTAL	6028			6509			3539		
		JANUARY			FEBRUARY			MARCH	
1	150			110			500		
2	150			140			300		
3	140			150			260		
4	130			160			250		
5	130			160			230		
6	120			150			220		
7	110			140			230		
8	110			130			240		
9	110			140			250		
10	108			140			270		
11	100			130			300		
12	120			140			300		
13	135			125			320		
14	130			100			340		
15	130			96			320		
16	120			96			310		
17	118			110			320		
18	110			120			340		
19	100			160			330		
20	100			156			320		
21	110			160			400		
22	118			168			500		
23	128			300			580		
24	140			700			462		
25	120			900			394		
26	100			1100			380		
27	95			1000			352		
28	90			980			338		
29	90			800			338		
30	90			---			338		
31	90			---			323		
TOTAL	3592			8761			10355		

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	338	1600	1460	344	2100	1950	556	5760	8650
2	337	1580	1440	338	1940	1770	590	5840	9300
3	323	1470	1280	329	1860	1650	607	5360	8780
4	330	1660	1480	338	2310	2110	765	9040	18700
5	323	1670	1460	366	3010	2970	615	6960	11600
6	316	1670	1420	366	2510	2480	534	6720	9700
7	303	1580	1290	351	2380	2260	508	6760	9270
8	310	1570	1310	332	1970	1770	477	4560	5870
9	323	1890	1650	338	1980	1810	452	3760	4590
10	345	2220	2070	347	2200	2060	424	2320	2660
11	316	2360	2010	402	3190	3460	409	2320	2560
12	296	2130	1700	433	2680	3130	382	1920	1980
13	289	1980	1540	416	2280	2560	366	1680	1660
14	296	2140	1710	485	3960	5190	508	2880	3950
15	276	1870	1390	794	11500	25000	439	2080	2470
16	270	1720	1250	660	10300	18400	669	7440	18200
17	270	1580	1150	624	12800	21300	734	13100	26000
18	255	1290	888	498	10200	13700	461	7920	9860
19	255	1180	812	409	9610	10600	651	10300	19400
20	248	1100	737	352	7700	7320	477	9750	13200
21	240	1040	674	316	5400	4610	565	13000	19800
22	233	1010	635	310	4470	3740	359	10600	10300
23	248	1250	837	295	3380	2690	296	6960	5560
24	409	4230	4670	289	2880	2250	283	3040	2320
25	454	4960	6080	541	5720	8270	316	2640	2250
26	454	5230	6410	599	7600	12300	248	2640	1770
27	454	5150	6310	1750	53500	272000	240	2800	1810
28	394	3560	3790	1190	39600	127000	462	4320	5390
29	380	3170	3250	852	25800	59400	387	1920	2010
30	352	2480	2360	678	14800	27100	366	1520	1500
31	---	---	---	633	8220	14000	---	---	---
TOTAL	9637	---	63063	15975	---	664850	14146	---	241110
		JULY			AUGUST			SEPTEMBER	
1	323	640	558	226	160	98	213	274	158
2	296	480	384	220	124	74	226	425	259
3	330	840	748	233	167	105	248	1080	723
4	352	1040	988	233	164	103	220	889	528
5	345	740	689	226	150	92	226	639	390
6	303	632	517	213	108	62	276	873	651
7	270	432	315	200	98	53	262	850	601
8	240	260	168	193	88	46	262	639	452
9	213	208	120	187	74	37	226	464	283
10	193	174	91	187	77	39	233	346	218
11	187	182	92	187	80	40	233	297	187
12	162	150	66	180	66	32	240	292	189
13	124	105	35	174	63	30	233	328	206
14	119	113	36	187	116	59	255	446	307
15	124	136	46	345	3700	4680	283	477	364
16	150	246	100	687	12600	24100	262	441	312
17	168	185	84	802	15600	33800	276	544	405
18	213	254	146	915	20000	50400	316	1180	1010
19	220	300	178	616	16700	27800	352	1260	1200
20	233	251	158	485	15900	20800	330	576	513
21	240	228	148	439	13400	15900	330	306	273
22	233	202	127	359	7990	7740	289	351	274
23	226	176	107	330	4930	4390	240	315	204
24	226	192	117	303	3500	2860	233	266	167
25	233	207	130	270	1800	1310	233	252	159
26	233	181	114	248	810	542	240	274	178
27	233	175	110	233	639	402	248	324	217
28	226	172	105	220	477	283	233	297	187
29	233	166	104	220	651	208	220	243	144
30	233	187	118	213	333	192	213	256	147
31	240	191	124	200	270	146	---	---	---
TOTAL	7121	---	6823	9731	---	196423	7651	---	10906
YEAR	103045		1183175						

06324890 LITTLE POWDER RIVER BELOW CORRAL CREEK, NEAR WESTON, WY

LOCATION.--Lat 44°30'20", long 105°27'12", in NW¼SW¼NE¼ sec.12, T.52 N., R.72 W., Campbell County, Hydrologic Unit 10090208, on right bank 0.3 mi (0.5 km) upstream from Bull Creek, 3.0 mi (4.8 km) downstream from Corral Creek, 11 mi (18 km) southwest of Weston, and 15 mi (24 km) north of Gillette.

DRAINAGE AREA.--204 mi² (528 km²), of which 3.69 mi² (9.56 km²) is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1975, October 1977 to current year. Prior to October 1977, published as Little Powder River below Corral Creek, near Gillette.

GAGE.--Water-stage recorder. Altitude of gage is 3,980 ft (1,213 km), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Small diversions for irrigation of hay meadows above station. Flow occasionally affected by contributions from mine dewatering.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,410 ft³/s (68.3 m³/s) May 18, 1978, gage height, 9.61 ft (2.929 m), from rating curve extended above 410 ft³/s (11.6 m³/s) on basis of slope area measurement at gage height 9.08 ft (2.768 m); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 99 ft³/s (2.80 m³/s) June 19, gage height, 4.24 ft (1.292 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.06	1.6	1.7	.14	2.5	1.5	.62	.06	.00	.00	.00
2	.00	.04	2.1	1.6	.17	3.6	1.4	.52	.04	.00	.00	.00
3	.00	.03	1.7	1.6	.21	3.4	1.2	.45	.03	.00	.00	.00
4	.00	.04	1.6	2.2	.25	1.1	.98	.30	.02	.00	.00	.00
5	.00	.06	1.4	2.4	.27	.95	.92	.32	.02	.00	.00	.00
6	.00	.10	1.3	1.4	.29	.90	.84	.34	.01	.00	.00	.00
7	.00	.08	.63	1.4	.32	.86	.82	.34	.01	.00	.00	.00
8	.00	.07	.40	1.2	.32	.84	.84	.37	.03	.00	.00	.00
9	.00	.06	.37	.56	.37	.80	.77	.35	.06	.00	.00	.00
10	.00	.06	.40	.63	.37	.90	.84	.94	4.9	.00	.00	.00
11	.00	.04	.45	.40	.37	1.3	.92	1.7	2.3	.00	.00	.00
12	.00	.50	.51	.84	.45	2.4	1.0	1.6	.45	.00	.00	.00
13	.00	.80	.37	.77	.33	4.4	.77	1.1	.25	.00	.00	.00
14	.00	.70	.37	.84	.29	7.0	.63	.72	.15	.00	.01	.00
15	.00	.63	.37	1.1	.27	8.0	.84	.80	.15	.00	.06	.00
16	.00	.56	.27	1.5	.32	7.5	.84	.83	.25	.00	.05	.00
17	.00	.70	.27	2.1	.34	7.8	.84	.70	.27	.00	.00	.00
18	.00	.84	.27	1.2	.63	8.0	.92	.63	.17	.00	.00	.00
19	.00	.92	.29	.40	2.7	7.5	1.2	.63	12	.00	.00	.00
20	.00	.92	.32	.32	14	6.5	1.5	.50	13	.00	.18	.00
21	.00	1.5	.32	.29	32	5.4	1.4	.45	5.9	.00	.03	.00
22	.00	2.2	.34	.27	26	5.0	1.1	.37	1.7	.00	.00	.00
23	.09	2.1	.37	.27	16	4.7	1.2	.34	.73	.00	.00	.00
24	.07	2.3	1.4	.37	15	4.4	.87	.29	.36	.00	.00	.00
25	.06	2.1	1.7	.37	12	4.0	.56	.29	.27	.00	.00	.00
26	.04	1.8	1.3	.27	10	3.7	.56	.29	.18	.00	.00	.00
27	.03	1.8	1.3	.23	5.4	3.4	.30	.25	.09	.00	.00	.00
28	.25	1.7	1.7	.21	1.5	2.7	.37	.23	.03	.00	.00	.00
29	.23	1.5	1.9	.14	.77	1.6	.51	.14	.00	.00	.00	.00
30	.12	1.5	3.0	.08	---	1.2	.47	.09	.00	.00	.00	.00
31	.07	---	3.6	.09	---	1.2	---	.06	---	.00	.00	---
TOTAL	.96	25.71	31.92	26.75	141.08	113.55	26.91	16.56	43.43	.00	.33	.00
MEAN	.031	.86	1.03	.86	4.86	3.66	.90	.53	1.45	.000	.011	.000
MAX	.25	2.3	3.6	2.4	32	8.0	1.5	1.7	13	.00	.18	.00
MIN	.00	.03	.27	.08	.14	.80	.30	.06	.00	.00	.00	.00
AC-FT	1.9	51	63	53	280	225	53	33	86	.00	.7	.00

CAL YR 1979 TOTAL 846.71 MEAN 2.32 MAX 19 MIN .00 AC-FT 1680
WTR YR 1980 TOTAL 427.20 MEAN 1.17 MAX 32 MIN .00 AC-FT 847

06324890 LITTLE POWDER RIVER BELOW CORRAL CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1975, May-August, November 1976, October 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
NOV 15...	1300	.61	2370	8.0	1.0	12.6	102	24	120	1200	720
DEC 05...	0900	1.4	2160	7.9	.0	11.0	87	50	160	1000	780
JAN 14...	1500	1.2	2425	7.5	.0	10.0	79	23	140	1200	940
FEB 13...	0930	.41	2450	7.5	.0	9.0	73	22	110	1300	970
MAR 04...	1540	--	--	--	--	--	--	--	--	--	--
21...	0930	5.4	2870	8.1	.0	11.0	89	K4	K1000	1300	1000
APR 11...	0910	.97	2830	8.0	.0	10.4	91	K1	83	1500	1200
MAY 06...	0745	.36	3376	7.8	12.0	6.0	64	55	91	1600	1200
JUN 02...	1435	.04	3340	8.0	19.0	--	--	K9	180	1600	1300
16...	1445	--	--	--	--	--	--	--	--	--	--
JUL 14...	1510	--	--	--	--	--	--	--	--	--	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	ACIDITY TOTAL HEATED (MG/L AS H)	ACIDITY (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)
NOV 15...	--	--	300	120	140	1.7	34	320	0	260
DEC 05...	--	--	260	92	120	1.6	11	300	0	240
JAN 14...	--	--	300	120	130	1.6	36	370	0	300
FEB 13...	.6	30	300	130	140	1.7	31	390	0	320
MAR 04...	--	--	--	--	--	--	--	--	--	--
21...	--	--	240	170	200	2.4	29	350	0	280
APR 11...	--	--	280	190	210	2.4	32	350	0	290
MAY 06...	--	--	310	200	240	2.6	38	430	0	360
JUN 02...	--	--	290	210	260	2.8	40	390	0	320
16...	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--

06324890 LITTLE POWDER RIVER BELOW CORRAL CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
NOV 15...	1100	12	.8	21	2080	1890	2.57	3.11	.04	.03
DEC 05...	1000	8.3	.9	24	1910	1670	2.27	6.31	.01	.00
JAN 14...	1100	9.3	.9	23	2060	1900	2.58	6.16	.17	.19
FEB 13...	1200	12	.9	20	2100	2030	2.76	2.25	.06	.08
MAR 04...	--	--	--	--	--	--	--	--	--	--
21...	1600	10	.6	11	2650	2440	3.32	35.7	.13	.13
APR 11...	1500	10	.7	5.3	2530	2400	3.26	6.29	.00	.00
MAY 06...	1800	12	.8	12	3120	2830	3.85	2.75	.01	.12
JUN 02...	1800	9.0	.6	3.5	3070	2810	3.82	.30	.17	.05
16...	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
NOV 15...	.020	.02	.44	.46	.50	2.2	.020	.06	.000	6.4
DEC 05...	.050	.06	.38	.43	.44	1.9	.010	.03	.000	9.4
JAN 14...	.110	.13	.82	.93	1.1	4.9	.020	.06	.000	6.9
FEB 13...	.220	.27	.27	.49	.55	2.4	.010	.03	.010	7.9
MAR 04...	--	--	--	--	--	--	--	--	--	--
21...	.060	.07	.72	.78	.91	4.0	.050	.15	.020	11
APR 11...	.080	.10	.61	.69	.69	3.1	.050	.15	.010	11
MAY 06...	.150	.18	9.6	9.7	9.7	43	.030	.09	.030	15
JUN 02...	.000	.00	.66	.66	.83	3.7	.010	.03	.020	16
16...	--	--	--	--	--	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	--	--	--	--

06324890 LITTLE POWDER RIVER BELOW CORRAL CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
NOV 15...	.1	--	--	370	--	--	--	--	18	.03
DEC 05...	--	.00	4	370	--	--	--	--	45	.17
JAN 14...	.2	--	0	35	--	--	--	--	52	.17
FEB 13...	.5	--	3	0	--	--	--	--	21	.02
MAR 04...	--	--	--	--	--	--	--	--	52	--
21...	.6	.00	3	2200	.000	.000	.000	.000	30	.44
APR 11...	.3	--	3	2600	--	--	--	--	10	.03
MAY 06...	.4	--	5	6000	--	--	--	--	65	.06
JUN 02...	.3	--	4	220	--	--	--	--	20	.00
16...	--	--	--	--	--	--	--	--	91	--
JUL 14...	--	--	--	--	--	--	--	--	98	--

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BARIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS BA)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)
NOV 15...	1300	--	--	--	--	--	--	--	--	--	--
DEC 05...	0900	--	--	--	--	--	--	--	--	--	--
JAN 14...	1500	--	--	--	--	--	--	--	--	--	--
FEB 13...	0930	--	--	--	--	--	--	--	--	--	--
MAR 21...	0930	0	1	0	1	5	100	80	20	150	0
APR 11...	0910	--	--	--	--	--	--	--	--	--	--
MAY 06...	0745	--	--	--	--	--	--	--	--	--	--
JUN 02...	1435	--	--	--	--	--	--	--	--	--	--

DATE	BERYL-LIUM, SUS-PENDED RECOV. (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BERYL-LIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
NOV 15...	--	--	--	1100	--	--	--	--	--	--	--
DEC 05...	--	--	--	1100	--	--	--	--	--	--	--
JAN 14...	--	--	--	1100	--	--	--	--	--	--	--
FEB 13...	--	--	--	930	--	--	--	--	--	--	--
MAR 21...	0	<1	1	580	0	0	<1	0	10	0	10
APR 11...	--	--	--	780	--	--	--	--	--	--	--
MAY 06...	--	--	--	1000	--	--	--	--	--	--	--
JUN 02...	--	--	--	910	--	--	--	--	--	--	--

06324890 LITTLE POWDER RIVER BELOW CORRAL CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
NOV 15...	--	--	--	--	--	--	--	--	--	10	--
DEC 05...	--	--	--	--	--	--	--	--	--	10	--
JAN 14...	--	--	--	--	--	--	--	--	--	0	--
FEB 13...	--	--	--	--	--	--	--	--	--	30	--
MAR 21...	6	2	0	<3	20	6	0	<10	21	26	1
APR 11...	--	--	--	--	--	--	--	--	--	40	--
MAY 06...	--	--	--	--	--	--	--	--	--	40	--
JUN 02...	--	--	--	--	--	--	--	--	--	30	--

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
NOV 15...	--	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--	--
JAN 14...	--	--	--	--	--	--	--	--	--	--	--
FEB 13...	--	--	--	--	--	--	--	--	--	--	--
MAR 21...	0	32	0	90	0	100	190	10	180	340	.0
APR 11...	--	--	--	--	--	--	--	--	--	--	--
MAY 06...	--	--	--	--	--	--	--	--	--	--	--
JUN 02...	--	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)
NOV 15...	--	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--	--
JAN 14...	--	--	--	--	--	--	--	--	--	--	--
FEB 13...	--	--	--	--	--	--	--	--	--	--	--
MAR 21...	.0	.0	.09	9	0	<10	1	3	3	0	10
APR 11...	--	--	--	--	--	--	--	--	--	--	--
MAY 06...	--	--	--	--	--	--	--	--	--	--	--
JUN 02...	--	--	--	--	--	--	--	--	--	--	--

06324890 LITTLE POWDER RIVER BELOW CORRAL CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
NOV 15...	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--
JAN 14...	--	--	--	--	--	--	--	--	--	--
FEB 13...	--	--	--	--	--	--	--	--	--	--
MAR 21...	1	0	1	0	3600	<6.0	30	20	10	44
APR 11...	--	--	--	--	--	--	--	--	--	--
MAY 06...	--	--	--	--	--	--	--	--	--	--
JUN 02...	--	--	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
MAR 21...	0930	<41	<.4	21	.9	21	1.0	<28	<.3

DATE	TIME	TEMPERATURE, WATER (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
MAR 21...	0930	.0	5.4	85	90	95	98	99	99	100

06324890 LITTLE POWDER RIVER BELOW CORRAL CREEK, NEAR WESTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	NOV 15,79	DEC 5,79	JAN 14,80	FEB 13,80
TIME	1300	0900	1500	0930
TOTAL CELLS/ML	370	370	35	0
DIVERSITY: DIVISION	1.5	1.0	0.0	0.0
.CLASS	1.8	1.5	0.0	0.0
..ORDER	1.8	2.0	0.6	0.0
...FAMILY	2.2	2.2	1.8	0.0
....GENUS	2.3	2.7	1.8	0.0

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHLOROCOCCACEAE								
....CHLOROCOCCUM	--	-	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	14	4	--	-	--	-
....CHLORELLA	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CARTERIA	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	96#	26	57#	15	--	-	--	-
....PLATYMONAS	--	-	--	-	--	-	--	-
...POLYBLEPHARIDACEAE								
....SPERMATOZOOPSIS	--	-	14	4	--	-	--	-
...VOLVOCACEAE								
....GONIUM	55	15	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	130#	35	5	14	--	-
....MELOSIRA	--	-	57#	15	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....RHOICOSPHENIA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	--	-	5	14	--	-
...FRAGILARIACEAE								
....SYNEDRA	--	-	14	4	10#	29	--	-
...NAVICULACEAE								
....NAVICULA	14	4	--	-	15#	43	--	-
...NITZSCHIACEAE								
....NITZSCHIA	14	4	14	4	--	-	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...CHROMULINACEAE								
....CHRYSOCOCCUS	--	-	--	-	--	-	--	-
...MALLOMONADACEAE								
....MALLOMONAS	150#	41	--	-	--	-	--	-
...OCHROMONADACEAE								
....DINOBRYON	--	-	57#	15	--	-	--	-
....OCHROMONAS	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	14	4	--	-	--	-	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	14	4	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	--	-	--	-	--	-
....COCCOCHLORIS	--	-	--	-	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-
....PHACUS	14	4	--	-	--	-	--	-
....TRACHELOMONAS	14	4	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..GYMNODINIALES								
...GYMNODINIACEAE								
....GYMNODINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06324890 LITTLE POWDER RIVER BELOW CORRAL CREEK, NEAR WESTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	MAR 21,80		APR 11,80		MAY 6,80		JUN 2,80	
TIME	0930		0910		0745		1435	
TOTAL CELLS/ML	2200		2600		6000		220	
DIVERSITY: DIVISION	1.3		1.4		1.3		0.8	
.CLASS	1.3		1.4		1.4		0.8	
..ORDER	1.5		2.0		2.1		1.5	
...FAMILY	1.7		2.1		2.2		2.4	
....GENUS	1.8		2.2		2.6		2.6	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHLOROCOCCACEAE								
....CHLOROCOCCUM	--	-	890#	35	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	190	9	--	-	940#	16	13	6
....CHLORELLA	--	-	49	2	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	990#	17	--	-
....KIRCHNERIELLA	--	-	--	-	47	1	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CARTERIA	28	1	--	-	--	-	--	-
....CHLAMYDOMONAS	180	8	--	-	1900#	32	--	-
....PLATYMONAS	--	-	470#	18	--	-	--	-
...POLYBLEPHARIDACEAE								
....SPERMATOZOOPSIS	--	-	--	-	--	-	--	-
...VOLVOCACEAE								
....GONIUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	25	1	47	1	26	12
....MELOSIRA	--	-	--	-	--	-	13	6
..PENNALES								
...ACHNANTHACEAE								
....RHOICOSPHENIA	--	-	--	-	--	-	13	6
...DIATOMACEAE								
....DIATOMA	--	-	--	-	47	1	13	6
...FRAGILARIACEAE								
....SYNEDRA	--	-	49	2	--	-	--	-
...NAVICULACEAE								
....NAVICULA	--	-	--	-	--	-	26	12
...NITZSCHIACEAE								
....NITZSCHIA	--	-	150	6	240	4	90#	41
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...CHROMULINACEAE								
....CHRYSOCOCCUS	--	-	--	-	1200#	20	--	-
...MALLOMONADACEAE								
....MALLOMONAS	--	-	--	-	--	-	--	-
...OCHROMONADACEAE								
....DINOBRYON	--	-	--	-	--	-	--	-
....OCHROMONAS	55	2	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	69	3	--	-	420	7	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	14	1	49	2	47	1	26	12
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	--	-	47	1	--	-
....COCCOCHLORIS	14	1	--	-	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	69	3	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	1500#	68	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	49	2	--	-	--	-
....PHACUS	--	-	--	-	--	-	--	-
....TRACHELOMONAS	14	1	840#	33	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..GYMNODINIALES								
...GYMNODINIACEAE								
....GYMNODINIUM	69	3	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

YELLOWSTONE RIVER BASIN

06324925 LITTLE POWDER RIVER NEAR WESTON, WY

LOCATION.--Lat 44°38'51", long 105°18'37", in NE¼NE¼SE¼ sec.19, T.54 N., R.70 W., Campbell County, Hydrologic Unit 10090208, on left bank 100 ft (30 m) downstream from bridge on county road, 1.5 mi (2.4 km) northeast of Weston, and 2.0 mi (3.2 km) downstream from Spring Creek.

DRAINAGE AREA.--540 mi^2 (1,399 km^2), of which 3.69 mi^2 (9.56 km^2) is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,680 ft (1,122 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Small diversions for irrigation of hay meadows above station. Flow occasionally affected by contributions from mine dewatering.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,460 ft^3/s (126 m^3/s) May 19, 1978, gage height, 13.32 ft (4.060 m); no flow for several days in 1979, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 356 ft^3/s (10.1 m^3/s) Aug. 15, gage height, 6.89 ft (2.100 m); no flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.10	.35	.33	.27	16	1.9	.37	.27	.16	.00	1.3
2	.05	.10	.35	.33	.33	8.8	1.9	.34	.36	.10	.00	1.5
3	.07	.10	.38	.33	.40	6.6	1.9	.33	.18	.05	.00	1.2
4	.05	.11	.43	.33	.47	3.3	2.0	.31	.12	.02	.00	1.0
5	.05	.12	.47	.40	.47	2.4	1.6	.33	.05	.00	.00	.62
6	.06	.19	.50	.33	.40	3.3	1.4	.49	.20	.00	.00	.40
7	.07	.21	.58	.29	.33	4.7	1.2	.52	.63	.00	.00	.22
8	.07	.21	1.2	.29	.42	3.0	1.2	.53	.12	.00	.00	.10
9	.07	.21	1.1	.27	.42	2.7	1.1	.58	.00	.00	.00	.05
10	.05	.21	.94	.27	.33	3.2	1.3	.91	.00	.00	.00	.00
11	.05	.21	.76	.22	.33	3.7	1.6	24	.00	.00	.00	.01
12	.05	.21	.55	.22	.33	3.7	1.7	4.4	.02	.00	.00	2.9
13	.06	.21	.50	.27	.33	8.0	1.6	1.0	.12	.00	.00	2.7
14	.07	.27	.43	.33	.27	6.0	1.6	.63	.47	.00	.00	1.6
15	.05	.27	.40	.33	.22	21	1.3	.54	1.2	.00	159	1.0
16	.08	.27	.33	.27	.22	21	1.4	.57	1.2	.00	180	1.1
17	.08	.27	.33	.22	.27	15	1.3	.45	1.1	.00	39	1.1
18	.09	.27	.54	.27	.42	11	1.3	.44	1.3	.00	13	.62
19	.10	.33	.54	.33	1.0	9.6	.99	.39	3.4	.00	5.0	.40
20	.11	.33	.54	.27	20	7.2	.82	.36	63	.00	13	.22
21	.16	.33	.47	.22	220	6.0	.78	.33	50	.00	71	.10
22	.16	.27	.40	.22	130	5.3	.70	.30	20	.00	9.7	.05
23	.12	.27	.33	.27	75	4.9	.66	.28	9.5	.00	4.4	.00
24	.10	.33	.40	.47	55	4.4	.60	.43	3.5	.00	2.8	.00
25	.11	.47	.47	.40	38	4.2	.55	.53	.71	.00	2.0	.00
26	.12	.47	.40	.33	29	3.2	.50	.28	.55	.00	1.9	.00
27	.10	.47	.40	.27	21	3.5	.47	.34	.42	.00	1.9	.00
28	.10	.47	.40	.22	22	3.8	.45	.20	.34	.00	1.3	.00
29	.18	.47	.33	.22	39	4.0	.42	.12	.27	.00	1.2	.00
30	.17	.40	.33	.22	---	3.3	.40	.26	.23	.00	1.2	.00
31	.12	---	.40	.22	---	2.4	---	.45	---	.00	1.5	---
TOTAL	2.74	8.15	15.55	8.96	656.23	205.2	34.64	41.01	159.26	.33	507.90	18.19
MEAN	.088	.27	.50	.29	22.6	6.62	1.15	1.32	5.31	.011	16.4	.61
MAX	.18	.47	1.2	.47	220	21	2.0	24	63	.16	180	2.9
MIN	.02	.10	.33	.22	.22	2.4	.40	.12	.00	.00	.00	.00
AC-FT	5.4	16	31	18	1300	407	69	81	316	.7	1010	36

CAL YR 1979 TOTAL 2344.82 MEAN 6.42 MAX 150 MIN .00 AC-FT 4650
WTR YR 1980 TOTAL 1658.16 MEAN 4.53 MAX 220 MIN .00 AC-FT 3290

06324925 LITTLE POWDER RIVER NEAR WESTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969, 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT 01...	1455	.01	3710	8.5	17.0	10.5	124	120	68	610	170	95
NOV 09...	0905	.21	3110	8.3	1.0	12.1	98	27	240	650	180	120
DEC 03...	1515	.32	5400	8.0	.5	11.3	89	K1	450	990	320	150
JAN 08...	1515	.29	5400	7.8	.0	--	--	K2	53	1000	230	170
FEB 08...	1000	.42	4600	8.1	.0	10.2	80	K1	87	940	220	180
MAR 11...	1150	3.8	2150	--	.5	12.8	105	K24	190	610	310	130
APR 07...	1505	1.2	3140	8.3	5.5	11.7	107	K2	K45	980	580	180
MAY 05...	1400	.36	3700	8.2	19.0	8.9	108	K3	110	920	450	170
JUN 05...	1450	.01	2700	8.4	23.5	--	--	K2	450	600	280	110
AUG 21...	0845	84	350	7.5	15.0	6.4	72	K12000	K20000	59	0	14

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT 01...	89	680	14	16	480	14	420	1700	10	.7	1.4	2800
NOV 09...	85	520	8.9	19	570	0	470	1200	8.9	.8	8.5	2260
DEC 03...	150	1100	15	24	820	0	670	2600	14	.7	8.8	4460
JAN 08...	140	1000	14	19	940	0	770	2400	18	.9	16	4110
FEB 08...	120	850	12	15	880	0	720	2100	16	.7	13	3820
MAR 11...	70	300	5.3	16	--	--	300	910	13	.4	11	1640
APR 07...	130	450	6.2	18	490	0	400	1500	11	.5	6.0	2390
MAY 05...	120	570	8.2	21	570	0	470	1700	13	.7	5.3	3050
JUN 05...	79	420	7.5	18	380	5	320	1100	6.8	.5	2.5	2060
AUG 21...	5.9	48	3.0	7.4	83	0	68	110	3.7	.3	13	241

06324925 LITTLE POWDER RIVER NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 01...	2840	3.86	.08	.01	--	.010	.01	.72	.73	.74	3.3	.040
NOV 09...	2240	3.05	1.27	.01	.00	.060	.07	.40	.46	.47	2.1	.010
DEC 03...	4450	6.05	3.84	.01	.01	.050	.06	.92	.97	.98	4.3	.010
JAN 08...	4230	5.75	3.31	.05	.05	.030	.04	.70	.73	.78	3.5	.010
FEB 08...	3730	5.07	4.23	.02	.04	.010	.01	.58	.59	.61	2.7	.000
MAR 11...	--	2.23	16.8	.03	.04	.060	.07	.82	.88	.91	4.0	.060
APR 07...	2540	3.45	8.23	.00	.00	.040	.05	.70	.74	.74	3.3	.050
MAY 05...	2880	3.92	2.80	.02	.19	.120	.15	.62	.74	.76	3.4	.040
JUN 05...	1930	2.62	.05	.02	.01	.040	.05	.77	.81	.83	3.7	.050
AUG 21...	248	.34	56.4	1.0	.93	.080	.10	15	15	16	71	1.400

DATE	PHOS- PHORUS, TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)
OCT 01...	.12	.010	8.1	1.6	--	--	2700	5.83	6.38	426	1.29	.090
NOV 09...	.03	.000	8.4	.1	--	--	650	.550	.550	.00	.060	.000
DEC 03...	.03	.010	25	2.3	.00	45	1900	--	--	--	--	--
JAN 08...	.03	.010	14	--	--	2	86	--	--	--	--	--
FEB 08...	.00	.000	--	--	--	0	120	--	--	--	--	--
MAR 11...	.18	.020	15	.6	.00	4	1300	--	--	--	--	--
APR 07...	.15	.020	9.9	.6	--	0	3900	--	--	--	--	--
MAY 05...	.12	.030	22	.2	--	2	6600	--	--	--	--	--
JUN 05...	.15	.010	23	.9	--	6	1000	--	--	--	--	--
AUG 21...	4.3	.230	9.7	>4.0	.00	4	--	--	--	--	--	--

06324925 LITTLE POWDER RIVER NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BARIUM, RECOV. FM BOTTOM MATERIAL (UG/G AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)
OCT 01...	1455	0	1	--	1	97	100	--	50	130	0
NOV 09...	0905	--	--	--	--	--	--	--	--	--	--
DEC 03...	1515	--	--	--	--	--	--	--	--	--	--
JAN 08...	1515	--	--	--	--	--	--	--	--	--	--
FEB 08...	1000	--	--	--	--	--	--	--	--	--	--
MAR 11...	1150	10	0	0	1	30	300	200	60	320	0
APR 07...	1505	--	--	--	--	--	--	--	--	--	--
MAY 05...	1400	--	--	--	--	--	--	--	--	--	--
JUN 05...	1450	--	--	--	--	--	--	--	--	--	--
AUG 21...	0845	20	12	11	1	7	900	900	30	160	10

DATE	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BERYLLIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	BORON, TOTAL RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)
OCT 01...	--	<1	0	--	230	3	--	<1	0	0	--
NOV 09...	--	--	--	--	200	--	--	--	--	--	--
DEC 03...	--	--	--	--	240	--	--	--	--	--	--
JAN 08...	--	--	--	--	320	--	--	--	--	--	--
FEB 08...	--	--	--	--	230	--	--	--	--	--	--
MAR 11...	0	<3	0	--	320	17	14	<3	2	0	0
APR 07...	--	--	--	--	380	--	--	--	--	--	--
MAY 05...	--	--	--	--	330	--	--	--	--	--	--
JUN 05...	--	--	--	--	260	--	--	--	--	--	--
AUG 21...	--	<1	0	70	80	1	--	<1	3	120	120

06324925 LITTLE POWDER RIVER NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, DISSOLVED (UG/L AS FE)
OCT 01...	0	1	0	--	<3	5	3	--	<10	1	<10
NOV 09...	--	--	--	--	--	--	--	--	--	--	20
DEC 03...	--	--	--	--	--	--	--	--	--	--	30
JAN 08...	--	--	--	--	--	--	--	--	--	--	40
FEB 08...	--	--	--	--	--	--	--	--	--	--	40
MAR 11...	0	6	0	0	<8	30	4	0	<25	14	65
APR 07...	--	--	--	--	--	--	--	--	--	--	20
MAY 05...	--	--	--	--	--	--	--	--	--	--	30
JUN 05...	--	--	--	--	--	--	--	--	--	--	30
AUG 21...	0	3	80	--	<3	10	220	--	<10	12	45

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 01...	18	--	8	0	40	--	56	250	--	39	650
NOV 09...	--	--	--	--	--	--	--	--	--	--	--
DEC 03...	--	--	--	--	--	--	--	--	--	--	--
JAN 08...	--	--	--	--	--	--	--	--	--	--	--
FEB 08...	--	--	--	--	--	--	--	--	--	--	--
MAR 11...	160	120	40	0	50	0	53	360	0	380	500
APR 07...	--	--	--	--	--	--	--	--	--	--	--
MAY 05...	--	--	--	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--	--	--	--
AUG 21...	280	--	<10	10	100	80	16	860	860	2	140

06324925 LITTLE POWDER RIVER NEAR WESTON, WY--*Continued*

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, SUS-PENDED RECOV. (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	MOLYB-DENUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)
OCT 01...	.2	--	.2	.05	3	--	<10	0	5	--	0
NOV 09...	--	--	--	--	--	--	--	--	--	--	--
DEC 03...	--	--	--	--	--	--	--	--	--	--	--
JAN 08...	--	--	--	--	--	--	--	--	--	--	--
FEB 08...	--	--	--	--	--	--	--	--	--	--	--
MAR 11...	.9	.2	.7	.04	3	0	<25	0	4	1	3
APR 07...	--	--	--	--	--	--	--	--	--	--	--
MAY 05...	--	--	--	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--	--	--	--
AUG 21...	.8	.8	.0	.06	2	--	<10	2	140	110	28

DATE	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
OCT 01...	5	0	--	0	1	1500	<6.0	10	--	<3	9
NOV 09...	--	--	--	--	--	--	--	--	--	--	--
DEC 03...	--	--	--	--	--	--	--	--	--	--	--
JAN 08...	--	--	--	--	--	--	--	--	--	--	--
FEB 08...	--	--	--	--	--	--	--	--	--	--	--
MAR 11...	10	1	0	1	1	1800	<8.0	20	0	20	12
APR 07...	--	--	--	--	--	--	--	--	--	--	--
MAY 05...	--	--	--	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--	--	--	--
AUG 21...	10	3	2	1	0	160	<3.0	890	860	32	30

06324925 LITTLE POWDER RIVER NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT									
01...	1455	<53	2.8	20	2.9	20	2.9	<36	1.9
MAR									
11...	1150	<25	1.4	<11	1.6	<11	1.7	<17	1.0
AUG									
21...	0845	<3.3	<360	5.1	360	5.0	340	<2.2	<240

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM
OCT									
01...	1455	17.0	.01	107	.00	--	--	--	--
NOV									
09...	0905	1.0	.21	72	.04	--	--	--	--
DEC									
03...	1515	.5	.32	205	.18	--	--	--	--
JAN									
08...	1515	.0	.29	124	.10	--	--	--	--
FEB									
08...	1000	.0	.42	94	.11	--	--	--	--
MAR									
11...	1150	.5	3.8	93	.95	--	--	4	5
APR									
07...	1505	5.5	1.2	118	.38	--	--	--	--
MAY									
05...	1400	19.0	.36	76	.07	--	--	--	--
AUG									
21...	0845	15.0	84	--	--	91	100	8	10

DATE	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
OCT									
01...	--	--	--	--	--	--	--	--	--
NOV									
09...	--	--	--	--	--	--	--	--	--
DEC									
03...	--	--	--	--	--	--	--	--	--
JAN									
08...	--	--	--	--	--	--	--	--	--
FEB									
08...	--	--	--	--	--	--	--	--	--
MAR									
11...	7	8	10	17	33	56	76	95	100
APR									
07...	--	--	--	--	--	--	--	--	--
MAY									
05...	--	--	--	--	--	--	--	--	--
AUG									
21...	12	14	17	25	43	67	80	100	--

YELLOWSTONE RIVER BASIN
06324925 LITTLE POWDER RIVER NEAR WESTON, WY--Continued
QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
PHYTOPLANKTON ANALYSES

DATE	OCT 1,79		NOV 9,79		JAN 8,80		FEB 8,80	
TIME	1455		0905		1515		1000	
TOTAL CELLS/ML	2700		650		86		120	
DIVERSITY: DIVISION	1.6		1.5		1.2		1.5	
.CLASS	1.6		1.8		1.2		1.5	
..ORDER	1.7		0.0		1.3		1.6	
...FAMILY	2.6		0.0		1.4		1.7	
....GENUS	3.3		0.0		1.9		1.7	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHLOROCOCCACEAE								
....CHLOROCOCCUM	43	2	--	-	5	6	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	200	7	29	4	5	6	25#	22
....CHLORELLA	14	1	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	14	2	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-
....WESTELLA	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....CRUCIGENIA	57	2	170#	27	--	-	--	-
....SCENEDESMUS	29	1	--	-	--	-	--	-
..TETRASPORALES								
...COCCOMYXACEAE								
....ELAKATOTHRIX	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	14	1	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...CHAETOCERACEAE								
....CHAETOCEROS	--	-	14	2	--	-	--	-
...COSCINODISCACEAE								
....CYCLOTELLA	14	1	29	4	10	12	5	4
..PENNALES								
...CYMBELLACEAE								
....CYMBELLA	29	1	--	-	--	-	--	-
....RHOPALODIA	240	9	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....SYNEDRA	--	-	14	2	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....GYROSIGMA	--	-	--	-	--	-	--	-
....MASTOGLOIA	430#	16	--	-	--	-	--	-
....NAVICULA	290	11	--	-	--	-	5	4
....PLEUROSIGMA	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	340	13	--	-	5	6	5	4
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE	--	-	110#	18	--	-	--	-
..CHRYSOMONADALES								
...CHROMULINACEAE								
....CHRYSOCOCCUS	--	-	140#	22	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	110#	18	--	-	--	-
..HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	400	15	--	-	--	-	--	-
....SCHIZOTHRIX	470#	18	--	-	--	-	--	-
....SPIRULINA	14	1	--	-	--	-	--	-
...RIVULARIACEAE								
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	57	2	--	-	10	12	--	-
....PHACUS	14	1	--	-	--	-	--	-
....TRACHELOMONAS	14	1	--	-	51#	59	5	4
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..GYMNODINIALES								
...GYMNODINIACEAE								
....GYMNODINIUM	--	-	--	-	--	-	71#	61
..PERIDINIALES								
...PERIDINIACEAE								
....PERIDINIUM	14	1	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

YELLOWSTONE RIVER BASIN

06324925 LITTLE POWDER RIVER NEAR WESTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	MAR 11,80	APR 7,80	MAY 5,80	JUN 5,80
TIME	1150	1505	1400	1450
TOTAL CELLS/ML	1300	3900	6600	1000
DIVERSITY: DIVISION	0.6	1.5	1.3	1.5
.CLASS	0.6	1.5	1.4	1.5
..ORDER	0.7	1.5	1.9	2.1
...FAMILY	0.7	1.8	2.0	2.9
....GENUS	0.7	1.9	2.8	3.2

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHLOROCOCCACEAE								
....CHLOROCOCCUM	--	-	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	13	1	1300#	33	1900#	29	13	1
....CHLORELLA	--	-	--	-	--	-	13	1
....DICTYOSPHAERIUM	--	-	--	-	1500#	22	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	240	4	13	1
....TETRAEDRON	--	-	--	-	39	1	--	-
....WESTELLA	--	-	--	-	--	-	52	5
...SCENEDESMACEAE								
....CRUCIGENIA	--	-	--	-	160	2	--	-
....SCENEDESMUS	--	-	--	-	--	-	26	2
..TETRASPORALES								
...COCCOMYXACEAE								
....ELAKATOTHRIX	--	-	--	-	320	5	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	91	7	--	-	120	2	26	2
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...CHAETOCERACEAE								
....CHAETOCEROS	--	-	--	-	--	-	--	-
...COSCINODISCACEAE								
....CYCLOTELLA	13	1	--	-	200	3	190#	19
..PENNALES								
...CYMBELLACEAE								
....CYMBELLA	--	-	--	-	--	-	--	-
....RHOPALODIA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	13	1	--	-	--	-	--	-
...FRAGILARIACEAE								
....SYNEDRA	--	-	180	5	--	-	39	4
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	13	1
...NAVICULACEAE								
....GYROSIGMA	--	-	--	-	--	-	39	4
....MASTOGLOIA	--	-	--	-	--	-	--	-
....NAVICULA	13	1	220	6	--	-	150	15
....PLEUROSIGMA	--	-	36	1	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	--	-	360	9	--	-	150	15
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	--	-	13	1
.CHRYSOPHYCEAE	--	-	--	-	--	-	--	-
..CHRYSOMONADALES								
...CHROMULINACEAE								
....CHRYSOCOCCUS	--	-	--	-	790	12	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	--	-	1100#	17	240#	24
..HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	1200#	89	--	-	--	-	--	-
....SCHIZOTHRIX	--	-	--	-	--	-	--	-
....SPIRULINA	--	-	--	-	--	-	--	-
...RIVULARIACEAE								
....RAPHIDIOPSIS	--	-	--	-	160	2	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	36	1	39	1	13	1
....PHACUS	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	1800#	46	--	-	26	2
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..GYMNODINIALES								
...GYMNODINIACEAE								
....GYMNODINIUM	--	-	--	-	--	-	--	-
..PERIDINIALES								
...PERIDINIACEAE								
....PERIDINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	DEC 03, 79	
TIME	1515	
TOTAL CELLS/ML	1,900	
DIVERSITY: DIVISION	0.4	
.CLASS	0.4	
ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....ANKISTRODESMUS	55	3
...SCENEDESMACEAE		
....CRUCIGENIA	73	4
CHRYSOPHYTA		
.CHRYSOPHYCEAE		
..CHRYSOMONADALES	18	1
...CHROMULINACEAE		
....CHRYSOCOCCUS	1,700#	91
CRYPTOPHYTA		
.CRYPTOPHYCEAE		
..CRYPTOMONADALES		
...CRYPTOMONADACEAE		
....CRYPTOMONAS	18	1

NOTE: # - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY

LOCATION.--Lat 44°55'45", long 105°21'06", in NW¼SW¼ sec.13, T.57 N., R.71 W., Campbell County, Hydrologic Unit 10090208, on left bank 3.1 mi (5.0 km) upstream from Dry Creek, 5.0 mi (8.0 km) south of the Wyoming-Montana State line, and 20 mi (32 km) north of Weston.

DRAINAGE AREA.--1,235 mi^2 (3,199 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR WY-77-1: Drainage area. WDR WY-78-1: 1976(M).

GAGE.--Water-stage recorder. Altitude of gage is 3,410 ft (1,039 m), from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. Diversion above station for irrigation of about 80 acres (32 hm^2) are below station. Since August 1976, the Rawhide Mine has intermittently pumped water into the river in T.52 N., R.71 W., about 45 mi (72 km) upstream.

AVERAGE DISCHARGE.--8 years, 25.2 ft^3/s (0.714 m^3/s), 18,260 acre-ft/yr (22.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,300 ft^3/s (150 m^3/s) May 19, 1978, gage height, 11.62 ft (3.542 m); maximum gage height, 11.63 ft (3.545 m) Mar. 20, 1978 (backwater from ice); no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 130 ft^3/s (3.68 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 22	1400	*293	8.3	5.25	1.600	Aug. 17	unknown	205	5.8	4.80	1.463
June 20	1200	162	4.6	4.55	1.387						

No flow Oct. 12-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.02	.55	1.2	1.5	23	5.9	1.9	.93	.34	.01	.05
2	.02	.02	.84	1.1	1.8	37	5.9	1.9	.68	.21	.01	.04
3	.02	.01	1.1	1.0	2.2	23	5.7	1.9	.54	.12	.02	.03
4	.02	.01	1.4	1.0	2.7	16	5.7	1.7	.48	.10	.02	.02
5	.02	.01	1.4	1.2	3.0	13	5.0	1.6	.30	.06	.02	.02
6	.02	.01	1.2	1.0	3.2	11	4.6	1.7	.08	.06	.02	.02
7	.02	.01	1.5	.90	2.8	9.4	4.6	1.4	.34	.04	.02	.02
8	.01	.01	1.2	.75	2.3	8.4	4.1	1.3	.34	.03	.02	.02
9	.01	.01	1.0	.65	2.3	8.1	4.1	1.3	.30	.03	.02	.02
10	.01	.01	1.1	.55	2.4	8.1	3.8	1.4	.05	.03	.02	.02
11	.01	.02	1.0	.50	2.2	8.1	3.8	1.7	.03	.02	.02	.02
12	.00	.02	1.0	.50	2.3	7.9	3.6	11	.03	.02	.04	.02
13	.00	.02	.95	.60	2.1	7.4	3.6	14	.04	.02	.03	.02
14	.00	.02	.90	.70	2.1	7.6	3.6	5.5	.08	.01	.03	.02
15	.00	.02	.85	.90	2.1	9.0	3.4	3.8	.10	.01	.04	.02
16	.00	.02	.80	1.3	2.1	10	3.8	3.6	.09	.01	25	.02
17	.01	.03	.85	1.8	2.5	12	3.4	3.2	.09	.01	180	.02
18	.01	.03	.95	2.0	3.0	11	3.2	2.7	.06	.02	30	.02
19	.01	.03	1.0	1.7	3.2	15	3.0	2.4	.05	.02	20	.02
20	.02	.02	1.1	1.4	8.4	13	2.9	2.3	70	.02	5.7	.02
21	.02	.02	1.2	1.5	79	13	2.7	2.1	53	.02	14	.02
22	.02	.02	1.2	1.7	210	14	2.9	1.7	54	.02	43	.02
23	.02	.04	1.1	2.0	136	14	2.6	1.4	32	.02	6.4	.01
24	.02	.10	1.2	2.2	92	11	2.4	1.3	17	.02	2.7	.01
25	.02	.20	1.3	2.2	96	8.6	2.3	1.3	5.2	.02	1.7	.01
26	.02	.35	1.2	2.1	101	7.6	2.0	1.3	3.2	.02	.84	.01
27	.02	.50	1.1	1.9	69	7.4	2.0	1.3	2.0	.02	.48	.01
28	.02	.45	1.0	1.5	34	6.5	2.0	1.1	1.0	.01	.34	.01
29	.03	.45	1.1	1.3	25	6.1	2.1	.93	.61	.01	.14	.01
30	.02	.45	1.1	1.2	---	5.9	1.9	1.0	.34	.01	.08	.01
31	.02	---	1.2	1.3	---	5.9	---	.93	---	.01	.06	---
TOTAL	.46	2.93	33.39	39.65	896.2	358.0	106.6	80.66	242.96	1.36	330.78	.58
MEAN	.015	.098	1.08	1.28	30.9	11.5	3.55	2.60	8.10	.044	10.7	.019
MAX	.03	.50	1.5	2.2	210	37	5.9	14	70	.34	180	.05
MIN	.00	.01	.55	.50	1.5	5.9	1.9	.93	.03	.01	.01	.01
AC-FT	.9	5.8	66	79	1780	710	211	160	482	2.7	656	1.2

CAL YR 1979 TOTAL 3786.74 MEAN 10.4 MAX 230 MIN .00 AC-FT 7510
WTR YR 1980 TOTAL 2093.57 MEAN 5.72 MAX 210 MIN .00 AC-FT 4150

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT											
05...	0845	--	.02	2920	8.3	8.0	--	9.9	94	<1	K14
12...	0815	--	.01	3000	8.1	11.0	4	9.0	--	K6	--
NOV											
06...	1300	--	.01	2740	8.1	7.0	5	10.9	99	K87	320
DEC											
03...	1315	--	1.1	4450	8.0	.5	7	12.5	98	K1	30
JAN											
07...	1425	--	.90	4440	8.0	.0	20	10.2	78	K13	26
FEB											
11...	1610	--	2.2	4240	7.9	.0	--	13.8	103	K1	K14
MAR											
03...	1450	--	20	1540	7.8	.0	--	11.8	91	K1	190
APR											
07...	1530	--	4.3	3104	8.1	1.0	--	13.3	103	130	26
MAY											
05...	1400	1.6	--	--	--	--	--	--	--	--	--
12...	1415	--	1.8	3750	8.2	16.0	--	9.8	114	57	330
14...	1200	--	5.9	5500	8.0	14.0	10	9.1	--	--	--
JUN											
05...	1440	.30	--	--	--	--	--	--	--	--	--
16...	1445	--	.09	3450	8.2	24.0	10	11.1	146	180	K3300
JUL											
14...	1510	--	.01	2630	8.4	30.0	30	10.4	153	K42	380
AUG											
18...	1730	--	31	770	8.0	22.5	--	--	--	--	--
18...	1800	--	27	690	7.8	22.0	1600	6.6	86	--	--
21...	1140	15	--	--	--	--	--	--	--	--	--
23...	1100	--	--	1020	--	17.5	700	7.4	--	--	--
23...	1200	--	--	--	--	--	--	--	--	--	--
SEP											
23...	1415	--	.01	2540	8.2	15.0	10	9.3	103	K14	140
25...	1100	--	.17	2600	8.1	10.5	15	9.8	--	--	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT											
05...	740	350	130	98	420	7.6	17	480	0	390	1200
12...	840	450	140	120	430	6.4	17	--	--	390	1300
NOV											
06...	830	490	150	110	370	5.6	19	420	0	340	1200
DEC											
03...	1200	670	220	150	770	9.8	12	610	0	500	2300
JAN											
07...	630	39	150	61	700	12	9.6	720	0	590	760
FEB											
11...	1400	750	260	170	660	7.8	23	730	0	600	2100
MAR											
03...	480	290	100	53	160	3.5	18	230	0	190	620
APR											
07...	1000	670	190	130	410	5.6	21	420	0	340	1500
MAY											
05...	--	--	--	--	--	--	--	--	--	--	--
12...	1100	720	200	140	570	7.6	27	430	0	360	1900
14...	--	--	--	--	--	--	--	--	--	--	--
JUN											
05...	--	--	--	--	--	--	--	--	--	--	--
16...	870	540	150	120	540	8.0	22	400	0	330	1600
JUL											
14...	690	330	130	89	370	6.1	20	420	7	350	1100
AUG											
18...	160	75	36	16	78	2.7	9.4	--	--	81	240
18...	170	64	39	17	79	2.9	9.2	130	0	100	240
21...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
SEP											
23...	650	300	120	86	380	6.5	12	440	0	360	1100
25...	--	--	--	--	--	--	--	--	--	--	--

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)
OCT											
05...	5.5	1.3	7.2	2240	2120	2.88	.11	.03	--	.040	.05
12...	4.6	.9	20	--	2270	3.09	.06	.02	--	.040	.05
NOV											
06...	11	.9	8.4	2120	2080	2.83	.06	.05	.52	.060	.07
DEC											
03...	17	.7	12	3870	3780	5.14	11.2	.03	.02	.050	.06
JAN											
07...	580	1.2	20	2360	2640	3.59	6.42	.35	.34	.240	.29
FEB											
11...	18	.8	13	3650	3610	4.91	21.4	.03	.03	.040	.05
MAR											
03...	10	.4	12	1130	1090	1.48	59.4	--	--	--	--
APR											
07...	11	.6	4.9	2510	2480	3.37	29.0	.01	.01	.100	.12
MAY											
05...	--	--	--	--	--	--	--	--	--	--	--
12...	15	.6	5.9	3200	3070	4.18	14.9	.02	.02	.030	.04
14...	--	--	--	--	--	--	--	--	--	--	--
JUN											
05...	--	--	--	--	--	--	--	--	--	--	--
16...	16	.8	9.4	2910	2660	3.62	.65	.02	.03	.200	.24
JUL											
14...	11	2.4	14	1980	1950	2.65	.05	.04	.02	.040	.05
AUG											
18...	4.0	.4	6.2	--	440	.60	36.8	--	.21	--	--
18...	3.5	.4	7.8	469	463	.63	33.9	.76	.50	.020	.02
21...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
SEP											
23...	11	1.0	8.5	1980	1940	2.64	.05	.00	.00	.010	.01
25...	--	--	--	--	--	--	--	--	--	--	--

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)
OCT										
05...	.36	.40	.43	1.9	.000	.00	.000	6.0	.4	--
12...	.43	.47	.49	2.2	.000	.00	--	--	--	--
NOV										
06...	.44	.50	.55	2.4	.010	.03	.010	8.0	--	--
DEC										
03...	.69	.74	.77	3.4	.010	.03	.000	30	.4	--
JAN										
07...	.86	1.1	1.5	6.4	.010	.03	.010	13	.7	--
FEB										
11...	.96	1.0	1.0	4.6	.010	.03	.010	22	.3	--
MAR										
03...	--	--	--	--	--	--	.050	22	2.2	--
APR										
07...	.50	.60	.61	2.7	.040	.12	.010	14	.1	--
MAY										
05...	--	--	--	--	--	--	--	--	--	--
12...	1.3	1.3	1.3	5.8	.020	.06	.010	10	.7	--
14...	--	--	--	--	--	--	--	--	--	--
JUN										
05...	--	--	--	--	--	--	--	--	--	--
16...	.46	.66	.68	3.0	.040	.12	.010	19	1.4	6.8
JUL										
14...	1.3	1.3	1.3	5.9	.060	.18	.020	13	.7	--
AUG										
18...	--	--	--	--	.500	1.5	--	--	--	--
18...	11	11	12	52	.630	1.9	.030	13	--	--
21...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
SEP										
23...	.58	.59	.59	2.6	.030	.09	.020	18	.3	--
25...	--	--	--	--	--	--	--	--	--	--

DATE	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	IN-VERTE-BRATES, BENTHIC WET WT. (G/SQ METER)	IN-VERTE-BRATES, BENTHIC TOTAL (ORG/SQ METER)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)
OCT										
05...	--	--	3000	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
NOV										
06...	--	--	930	1.18	1.34	--	--	364	.440	.000
DEC										
03...	.00	4	880	--	--	--	--	--	--	--
JAN										
07...	--	15	170	--	--	--	--	--	--	--
FEB										
11...	--	1	190	--	--	--	--	--	--	--
MAR										
03...	--	3	7100	--	--	--	--	--	--	--
APR										
07...	--	1	1400	10.2	11.0	--	--	602	1.33	.120
MAY										
05...	--	--	--	--	--	--	--	--	--	--
12...	--	0	3700	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
JUN										
05...	--	--	--	--	--	--	--	--	--	--
16...	--	4	3800	--	--	--	--	--	--	--
JUL										
14...	--	1	500	6.14	7.09	--	--	413	2.30	.330
AUG										
18...	--	--	--	--	--	--	--	--	--	--
18...	--	7	--	6.69	7.80	--	--	459	2.42	.160
21...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	1.6	130	--	--	--
23...	--	--	--	--	--	--	650	--	--	--
SEP										
23...	--	2	1300	2.68	3.70	--	--	2040	.500	.090
25...	--	--	--	--	--	--	--	--	--	--

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BARIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS BA)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)
OCT											
05...	0845	0	1	0	1	12	100	--	30	150	0
12...	0815	--	--	--	--	--	--	--	--	--	--
NOV											
06...	1300	--	--	--	--	--	--	--	--	--	--
DEC											
03...	1315	--	--	--	--	--	--	--	--	--	--
JAN											
07...	1425	--	--	--	--	--	--	--	--	--	--
FEB											
11...	1610	--	--	--	--	--	--	--	--	--	--
MAR											
03...	1450	10	1	0	1	18	200	200	50	140	0
APR											
07...	1530	--	--	--	--	--	--	--	--	--	--
MAY											
12...	1415	--	--	--	--	--	--	--	--	--	--
JUN											
16...	1445	--	--	--	--	--	--	--	--	--	--
JUL											
14...	1510	--	--	--	--	--	--	--	--	--	--
AUG											
18...	1800	160	12	10	2	32	400	300	70	200	10
SEP											
23...	1415	--	--	--	--	--	--	--	--	--	--

DATE	BERYL-LIUM, SUS-PENDED RECOV. (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BERYL-LIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
OCT											
05...	--	<1	0	190	4	--	4	0	20	10	10
12...	--	--	--	180	--	--	--	--	--	--	--
NOV											
06...	--	--	--	190	--	--	--	--	--	--	--
DEC											
03...	--	--	--	230	--	--	--	--	--	--	--
JAN											
07...	--	--	--	900	--	--	--	--	--	--	--
FEB											
11...	--	--	--	270	--	--	--	--	--	--	--
MAR											
03...	0	<1	0	300	1	0	<1	0	0	0	0
APR											
07...	--	--	--	250	--	--	--	--	--	--	--
MAY											
12...	--	--	--	300	--	--	--	--	--	--	--
JUN											
16...	--	--	--	230	--	--	--	--	--	--	--
JUL											
14...	--	--	--	230	--	--	--	--	--	--	--
AUG											
18...	--	<1	0	110	1	--	<1	4	80	80	0
SEP											
23...	--	--	--	170	--	--	--	--	--	--	--

YELLOWSTONE RIVER BASIN

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
OCT											
05...	3	0	--	<3	0	2	--	<10	4	20	20
12...	--	--	--	--	--	--	--	--	--	30	--
NOV											
06...	--	--	--	--	--	--	--	--	--	20	--
DEC											
03...	--	--	--	--	--	--	--	--	--	20	--
JAN											
07...	--	--	--	--	--	--	--	--	--	30	--
FEB											
11...	--	--	--	--	--	--	--	--	--	20	--
MAR											
03...	3	0	0	<3	10	13	3	<10	5	70	6
APR											
07...	--	--	--	--	--	--	--	--	--	20	--
MAY											
12...	--	--	--	--	--	--	--	--	--	520	--
JUN											
16...	--	--	--	--	--	--	--	--	--	40	--
JUL											
14...	--	--	--	--	--	--	--	--	--	20	--
AUG											
18...	5	46	--	<3	10	140	--	<10	5	35	140
SEP											
23...	--	--	--	--	--	--	--	35	--	30	--

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
OCT											
05...	0	<10	15	40	--	50	120	--	73	700	.4
12...	--	--	--	--	--	--	--	--	--	--	--
NOV											
06...	--	--	--	--	--	--	--	--	--	--	--
DEC											
03...	--	--	--	--	--	--	--	--	--	--	--
JAN											
07...	--	--	--	--	--	--	--	--	--	--	--
FEB											
11...	--	--	--	--	--	--	--	--	--	--	--
MAR											
03...	6	29	0	40	0	48	190	30	160	240	.0
APR											
07...	--	--	--	--	--	--	--	--	--	--	--
MAY											
12...	--	--	--	--	--	--	--	--	--	--	--
JUN											
16...	--	--	--	--	--	--	--	--	--	--	--
JUL											
14...	--	--	--	--	--	--	--	--	--	--	--
AUG											
18...	--	<10	20	70	60	14	800	800	3	330	.7
SEP											
23...	--	--	--	--	--	--	--	--	--	--	--

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)
OCT											
05...	.3	.1	.01	3	2	1	0	2	0	4	5
12...	--	--	--	--	--	--	--	--	--	--	--
NOV											
06...	--	--	--	--	--	--	--	--	--	--	--
DEC											
03...	--	--	--	--	--	--	--	--	--	--	--
JAN											
07...	--	--	--	--	--	--	--	--	--	--	--
FEB											
11...	--	--	--	--	--	--	--	--	--	--	--
MAR											
03...	.0	.1	.02	2	0	<10	0	13	12	1	10
APR											
07...	--	--	--	--	--	--	--	--	--	--	--
MAY											
12...	--	--	--	--	--	--	--	--	--	--	--
JUN											
16...	--	--	--	--	--	--	--	--	--	--	--
JUL											
14...	--	--	--	--	--	--	--	--	--	--	--
AUG											
18...	.6	.1	.04	1	--	<10	2	84	84	0	10
SEP											
23...	--	--	--	--	--	--	--	--	--	--	--

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
OCT										
05...	1	0	3	0	2000	<6.0	20	--	<3	17
12...	--	--	--	--	--	--	--	--	--	--
NOV										
06...	--	--	--	--	--	--	--	--	--	--
DEC										
03...	--	--	--	--	--	--	--	--	--	--
JAN										
07...	--	--	--	--	--	--	--	--	--	--
FEB										
11...	--	--	--	--	--	--	--	--	--	--
MAR										
03...	1	0	1	0	1200	<6.0	50	40	10	22
APR										
07...	--	--	--	--	--	--	--	--	--	--
MAY										
12...	--	--	--	--	--	--	--	--	--	--
JUN										
16...	--	--	--	--	--	--	--	--	--	--
JUL										
14...	--	--	--	--	--	--	--	--	--	--
AUG										
18...	4	2	2	1	450	<6.0	910	--	<3	33
SEP										
23...	--	--	--	--	--	--	--	--	--	--

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT									
05...	0845	<39	<.4	23	<.4	23	<.4	<27	<.3
MAR									
03...	1450	<17	4.2	20	2.6	20	2.6	<12	2.9
AUG									
18...	1800	<6.1	240	8.1	100	7.8	95	<4.1	160

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM
OCT									
03...	1745	--	--	.02	14	.00	--	--	--
05...	0845	8.0	--	.02	53	.00	--	--	--
NOV									
06...	1300	7.0	--	.01	36	.00	--	--	--
DEC									
03...	1315	.5	--	1.1	80	.24	--	--	--
JAN									
07...	1425	.0	--	.90	45	.11	--	--	--
FEB									
11...	1610	.0	--	2.2	32	.19	--	--	--
MAR									
03...	1450	.0	--	20	123	6.7	--	--	2
APR									
07...	1530	1.0	--	4.3	25	.29	--	--	--
MAY									
05...	1400	--	1.6	--	151	.65	--	--	--
12...	1415	16.0	--	1.8	76	.37	--	--	--
JUN									
05...	1440	--	.30	--	133	.11	--	--	--
AUG									
18...	1800	22.0	--	27	--	--	95	100	1
21...	1140	--	15	--	526	21	--	--	--
SEP									
23...	1415	15.0	--	.01	24	.00	--	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
OCT									
03...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
NOV									
06...	--	--	--	--	--	--	--	--	--
DEC									
03...	--	--	--	--	--	--	--	--	--
JAN									
07...	--	--	--	--	--	--	--	--	--
FEB									
11...	--	--	--	--	--	--	--	--	--
MAR									
03...	4	8	13	19	28	46	72	88	100
APR									
07...	--	--	--	--	--	--	--	--	--
MAY									
05...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
JUN									
05...	--	--	--	--	--	--	--	--	--
AUG									
18...	2	6	16	22	30	47	67	81	100
21...	--	--	--	--	--	--	--	--	--
SEP									
23...	--	--	--	--	--	--	--	--	--

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	OCT 5,79	NOV 6,79	DEC 3,79	JAN 7,80	FEB 11,80	MAR 3,80
TIME	0845	1300	1315	1425	1610	1450
TOTAL CELLS/ML	3000	930	880	170	190	7100
DIVERSITY: DIVISION	1.1	1.4	1.1	1.4	1.2	0.2
.CLASS	1.2	1.4	1.3	1.4	1.8	0.2
..ORDER	1.3	1.6	0.0	1.6	2.1	0.2
...FAMILY	2.0	1.9	0.0	2.1	2.1	0.2
....GENUS	2.0	2.0	0.0	2.2	2.1	0.2

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...MICRACTINIACEAE												
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	53	2	150#	16	29	3	15	9	14	8	--	-
....CHLORELLA	--	-	--	-	--	-	--	-	--	-	--	-
....CHODATELLA	--	-	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	79	3	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	57	7	--	-	--	-	--	-
....SELENASTRUM	--	-	14	1	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE												
....CRUCIGENIA	--	-	55	6	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CARTERIA	26	1	--	-	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	--	-	27	3	--	-	5	3	43#	23	77	1
....GLOEOMONAS	--	-	--	-	290#	33	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	69	7	--	-	5	3	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE												
....CYMBELLA	--	-	--	-	14	2	5	3	--	-	--	-
...DIATOMACEAE												
....DIATOMA	--	-	--	-	--	-	--	-	--	-	--	-
...EUNOTIACEAE												
....EUNOTIA	--	-	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE												
....SYNEDRA	26	1	--	-	--	-	10	6	--	-	--	-
...NAVICULACEAE												
....GYROSIGMA	--	-	--	-	--	-	--	-	--	-	--	-
....MASTOGLOIA	--	-	--	-	--	-	5	3	--	-	--	-
....NAVICULA	--	-	14	1	--	-	15	9	--	-	39	1
....PLAGIOTROPIS	--	-	--	-	--	-	--	-	--	-	--	-
....PLEUROSIGMA	--	-	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE												
....NITZSCHIA	53	2	55	6	14	2	15	9	72#	38	77	1
.CHRYSOPHYCEAE	--	-	--	-	72	8	--	-	--	-	--	-
..CHRYSOMONADALES												
...CHROMULINACEAE												
....CHRYSOCOCCUS	840#	28	--	-	390#	44	--	-	43#	23	--	-
...OCHROMONADACEAE												
....KEPHYRIOPSIS	1400#	48	--	-	--	-	--	-	--	-	--	-
.XANTHOPHYCEAE												
..HETEROCOCCALES												
...CHLOROTHECIACEAE												
....OPHIOCYTIUM	--	-	--	-	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	--	-	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE												
....CRYPTOMONAS	130	4	--	-	14	2	--	-	14	8	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE TIME	OCT 5,79 0845		NOV 6,79 1300		DEC 3,79 1315		JAN 7,80 1425		FEB 11,80 1610		MAR 3,80 1450	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....AGMENELLUM	370	12	--	-	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES												
...NOSTOCACEAE												
....ANABAENA	--	-	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-	7000#	97
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	--	-	--	-	--	-	--	-	--	-	--	-
....PHACUS	--	-	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	550#	59	--	-	96#	56	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..PERIDINIALES												
...GLENODINIACEAE												
....GLENODINIUM	--	-	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	APR 7,80	MAY 12,80	JUN 16,80	JUL 14,80	SEP 23,80
TIME	1530	1415	1445	1510	1415
TOTAL CELLS/ML	1400	3700	3800	500	1300
DIVERSITY: DIVISION	1.5	1.6	1.9	2.0	2.0
.CLASS	1.5	1.6	2.0	2.0	2.0
..ORDER	1.9	2.1	2.0	2.3	2.7
...FAMILY	2.7	2.3	2.6	2.9	2.9
....GENUS	2.9	2.8	3.3	3.0	3.1

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	25	1	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	360#	25	320	9	500	13	26	5	26	2
....CHLORELLA	13	1	120	3	--	-	--	-	--	-
....CHODATELLA	--	-	--	-	25	1	--	-	--	-
....DICTYOSPHAERIUM	--	-	260	7	280	7	--	-	--	-
....OOCYSTIS	--	-	--	-	130	3	--	-	--	-
....SELENASTRUM	--	-	60	2	25	1	--	-	--	-
....TREUBARIA	--	-	140	4	50	1	--	-	--	-
...SCENEDESMACEAE										
....CRUCIGENIA	--	-	--	-	300	8	--	-	52	4
....SCENEDESMUS	--	-	120	3	200	5	150#	31	100	8
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CARTERIA	--	-	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	88	6	20	1	--	-	--	-	150	12
....GLOEOMONAS	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	38	3	100	3	75	2	52	10	64	5
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	13	1	--	-	--	-	--	-	13	1
....COCCONEIS	--	-	--	-	75	2	39	8	39	3
...CYMBELLACEAE										
....CYMBELLA	25	2	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	13	1	--	-	--	-	--	-	--	-
...EUNOTIACEAE										
....EUNOTIA	38	3	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....SYNEDRA	38	3	--	-	50	1	--	-	--	-
...NAVICULACEAE										
....GYROSIGMA	--	-	--	-	25	1	--	-	--	-
....MASTOGLOIA	--	-	--	-	--	-	--	-	--	-
....NAVICULA	150	11	40	1	75	2	13	3	13	1
....PLAGIOTROPIS	13	1	--	-	--	-	--	-	--	-
....PLEUROSIGMA	13	1	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	360#	25	20	1	100	3	90#	18	26	2
.CHRYSOPHYCEAE	--	-	--	-	--	-	--	-	--	-
..CHRYSOMONADALES										
...CHROMULINACEAE										
....CHRYSOCOCCUS	--	-	--	-	--	-	--	-	--	-
...OCHROMONADACEAE										
....KEPHYRIOPSIS	--	-	--	-	--	-	--	-	--	-
.XANTHOPHYCEAE										
..HETEROCOCCALES										
...CHLOROTHECIACEAE										
....OPHIOCYTIUM	--	-	--	-	25	1	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	--	-	--	-	13	1
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	39	8	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	APR 7,80		MAY 12,80		JUN 16,80		JUL 14,80		SEP 23,80	
TIME	1530		1415		1445		1510		1415	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....AGMENELLUM	--	-	--	-	--	-	--	-	210#	16
....ANACYSTIS	--	-	1500#	40	930#	25	39	8	26	2
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	480	13	--	-	--	-	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	--	-	--	-	230#	17
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	25	1	13	3	--	-
....PHACUS	--	-	--	-	--	-	13	3	--	-
....TRACHELOMONAS	260#	18	560#	15	860#	23	26	5	360#	27
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	25	1	--	-	--	-

NOTE: # - DOMINANT ORGANISM, EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1979 TO AUGUST 1980

DATE TIME	AUG 23,80 1100	AUG 23,80 1140	AUG 23,80 1200
TOTAL COUNT	25	43	15
DIVERSITY: PHYLUM	0.9	0.0	1.0
.CLASS	1.3	0.0	1.0
..ORDER	2.3	1.7	1.6
...FAMILY	2.6	2.1	1.8
....GENUS	2.6	2.2	2.0
....GENUS-INSECTA	2.4	2.2	1.8
ORGANISM	COUNT	COUNT	COUNT
ANNELIDA			
.OLIGOCHAETA			
..PLESIOPORA			
...TUBIFICIDAE			
....LIMNODRILUS	9	--	--
....PELOSCOLEX	--	--	6
ARTHROPODA (ARTHROPODS)			
.CRUSTACEA			
..AMPHIPODA			
...TALITRIDAE			
....HYALLELA	2	--	--
.INSECTA			
..COLEOPTERA			
...ELMIDAE			
....DUBIRAPHIA	1	1	4
...HYDROPHILIDAE			
....BEROSUS	1	--	--
....LACCOBIUS	1	--	--
..DIPTERA			
...CERATOPOGONIDAE-HELEIDAE			
....UNKNOWN GENUS	--	--	1
...CHAOBORIDAE			
....CHAOBORUS	--	21	--
...CHIRONOMIDAE			
....ABLABESMYIA	--	2	--
....CHIRONOMUS	--	--	1
....TANYPUS	--	1	3
...MUSCIDAE			
....UNKNOWN GENUS	4	--	--
...TIPULIDAE			
....UNKNOWN GENUS	1	--	--
..EPHEMEROPTERA			
...BAETIDAE			
....BAETIS	--	9	--
...CAENIDAE			
....CAENIS	--	2	--
..HEMIPTERA			
...BELOSTOMATIDAE			
....LETHOCERUS	1	--	--
...CORIXIDAE			
....UNKNOWN GENUS	--	2	--
..MEGALOPTERA			
...SIALIDAE			
....SIALIS	5	--	--
..ODONATA			
...COENAGRIONIDAE			
....ENALLAGMA	--	5	--

Reservoirs in Yellowstone River basin in Wyoming

06224500 **BULL LAKE.**--Lat 43°12'35", long 109°02'30", in E½NW¼ sec.30, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, at dam on Bull Lake Creek, 2.8 mi (4.5 km) upstream from mouth of Bull Lake Creek, and 9.8 mi (15.8 km) south of Lenore. DRAINAGE AREA, 210 mi^2 (544 km^2) of which 12 mi^2 (31.1 km^2) is probably noncontributing. PERIOD OF RECORD, April 1938 to current year. Monthend contents only for some periods, published in WSP 1309. Published as Bull Lake Reservoir near Lenore 1938-50. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Water and Power Resources Service datum).

REMARKS, reservoir is formed by rockfill dam completed by Water and Power Resources Service July 22, 1938. Capacity, 152,500 acre-ft (188 hm^3) below elevation 5,805.00 ft (1,769.364 m), top of spillway gates. Dead storage, 722 acre-ft (0.890 hm^3). Figures given herein represent total contents. Water used for irrigation near Riverton. COOPERATION, records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 154,200 acre-ft (190 hm^3) Aug. 10, 1965, elevation, 5,805.70 ft (1,769.577 m); minimum daily (since appreciable storage was attained), 5,540 acre-ft (6.83 hm^3) Mar. 15, 1950, elevation, 5,742.56 ft (1,750.332 m).

EXTREMES FOR CURRENT YEAR: Maximum daily contents, 149,000 acre-ft (184 hm^3) July 3, elevation, 5,803.90 ft (1,769.029 m); minimum daily, 66,990 acre-ft (82.6 hm^3) Sept. 30, elevation, 5,774.10 ft (1,759.946 m).

06258900 **BOYSEN RESERVOIR.**--Lat 43°25'00", long 108°10'37", in NW¼NW¼ sec.16, T.5 N., R.6 E., Fremont County, Hydrologic Unit 10080005, at dam on Wind River and 13 mi (21 km) north of Shoshoni. DRAINAGE AREA, 7,700 mi^2 (19,943 km^2). PERIOD OF RECORD, October 1951 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Water and Power Resources Service datum of 1933).

REMARKS, reservoir is formed by rockfill dam completed by Water and Power Resources Service in October 1951. Capacity, 802,000 acre-ft (989 hm^3) below elevation 4,725.00 ft (1,440.180 m), top of spillway gate. Includes 59,880 acre-ft (73.8 hm^3) dead storage below elevation 4,657.00 ft (1,419.454 m), invert of penstock pipe. Figures given herein represent total contents. Water used for irrigation, flood control, and power development. COOPERATION, records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 922,400 acre-ft (1,140 hm^3) July 6, 7, 1967, elevation, 4,730.83 ft (1,441.957 m); minimum daily (since normal use of water started), 251,800 acre-ft (310 hm^3) Mar. 18, 19, 1956, elevation, 4,684.18 ft (1,427.738 m).

EXTREMES FOR CURRENT YEAR: Maximum daily contents, 840,330 acre-ft (1,040 hm^3) July 5, elevation, 4,726.92 ft (1,440.765 m); minimum daily, 521,640 acre-ft (643 hm^3) Apr. 22, elevation, 4,708.43 ft (1,435.130 m).

06260300 **ANCHOR RESERVOIR.**--Lat 43°39'50", long 108°49'27", in sec.26, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, at dam on South Fork Owl Creek, 2.0 mi (3.2 km) downstream from Middle Fork, 3.0 mi (4.8 km) southeast of Anchor, and 32 mi (51 km) west of Thermopolis. DRAINAGE AREA, 131 mi^2 (339 km^2). PERIOD OF RECORD, November 1960 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Water and Power Resources Service datum).

REMARKS, reservoir is formed by concrete arch dam completed by Water and Power Resources Service in 1960. Capacity, 17,230 acre-ft (21.2 hm^3), below elevation 6,441.00 ft (1,963.217 m), crest of spillway. Includes 68 acre-ft (0.0838 hm^3) below elevation 6,343.75 ft (1,933.575 m), invert of river outlet. Figures given herein represent total contents. Water used for irrigation of lands in Owl Creek basin. COOPERATION, records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 9,250 acre-ft (11.4 hm^3) July 4, 1967, elevation, 6,418.52 ft (1,956.365 m); no storage on many days each year.

EXTREMES FOR CURRENT YEAR: Maximum daily contents, 5,460 acre-ft (6.73 hm^3) June 25, elevation, 6,403.71 ft (1,951.851 m); no storage on many days.

06281500 **BUFFALO BILL RESERVOIR.**--Lat 44°30'05", long 109°11'00", in NE¼ sec.12, T.52 N., R.103 W., Park County, Hydrologic Unit 10080013, at dam on Shoshone River, 5.0 mi (8.0 km) upstream from Trail Creek, and 6.0 mi (9.7 km) southwest of Cody. DRAINAGE AREA, 1,498 mi^2 (3,880 km^2). PERIOD OF RECORD, May to July 1909, January 1910 to current year. Monthend contents only prior to October 1938, published in WSP 1309. Prior to October 1944, published as Shoshone Reservoir near Cody. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Water and Power Resources Service datum). Prior to July 8, 1959, nonrecording gage at same datum.

REMARKS, reservoir is formed by masonry dam completed by Water and Power Resources Service in 1909. Capacity, 424,000 acre-ft (523 hm^3) between elevations 5,140.00 ft (1,566.672 m), gate sill, and 5,360.00 ft (1,633.728 m), crest of spillway. Dead storage negligible. Figures given herein represent total contents. Water used for power development and irrigation of lands east of Cody. COOPERATION, records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 507,000 acre-ft (625 hm^3) June 15, 1918, elevation, 5,367.3 ft (1,635.95 m); minimum daily, 19,000 acre-ft (23.4 hm^3) Jan. 23-25, 1941, elevation, 5,225.3 ft (1,592.67 m).

EXTREMES FOR CURRENT YEAR: Maximum daily contents, 443,900 acre-ft (547 hm^3) June 26, elevation, 5,362.92 ft (1,634.618 m); minimum daily, 210,420 acre-ft (259 hm^3) Jan. 9, elevation, 5,321.03 ft (1,621.850 m).

Reservoirs in Yellowstone River basin in Wyoming--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
06224500 BULL LAKE			
Sept. 30	5,777.15	74,300	-
Oct. 31	5,777.65	75,520	+1,220
Nov. 30	5,778.02	76,430	+910
Dec. 31	5,778.15	76,750	+320
CAL YR 1979	-	-	-30,050
Jan. 31	5,778.65	77,990	+1,240
Feb. 29	5,778.92	78,660	+670
Mar. 31	5,779.20	79,360	+700
Apr. 30	5,780.20	81,870	+2,510
May 31	5,792.65	115,300	+33,430
June 30	5,802.90	145,900	+30,600
July 31	5,800.28	137,800	-8,100
Aug. 31	5,788.07	102,500	-35,300
Sept. 30	5,774.10	66,990	-35,510
WTR YR 1980	-	-	-7,310
06258900 BOYSEN RESERVOIR			
Sept. 30	4,715.32	627,800	-
Oct. 31	4,715.70	634,100	+6,300
Nov. 30	4,715.17	625,300	-8,800
Dec. 31	4,713.95	605,600	-19,700
CAL YR 1979	-	-	-7,600
Jan. 31	4,712.48	582,500	-23,100
Feb. 29	4,711.35	565,100	-17,400
Mar. 31	4,710.10	546,300	-18,800
Apr. 30	4,708.57	523,700	-22,600
May 31	4,718.93	689,300	+165,600
June 30	4,726.26	827,000	+137,700
July 31	4,723.35	770,200	-56,800
Aug. 31	4,720.23	712,500	-57,700
Sept. 30	4,717.68	667,600	-44,900
WTR YR 1980	-	-	+39,800
06260300 ANCHOR RESERVOIR			
Sept. 30	DRY	0	-
Oct. 31	DRY	0	0
Nov. 30	DRY	0	0
Dec. 31	DRY	0	0
CAL YR 1979	-	-	0
Jan. 31	DRY	0	0
Feb. 29	DRY	0	0
Mar. 31	DRY	0	0
Apr. 30	6,356.00	293	+293
May 31	6,393.53	3,390	+3,097
June 30	6,399.85	4,440	+1,050
July 31	DRY	0	-4,440
Aug. 31	DRY	0	0
Sept. 30	DRY	0	0
WTR YR 1980	-	-	0
06281500 BUFFALO BILL RESERVOIR			
Sept. 30	5,328.43	242,800	-
Oct. 31	5,321.78	213,500	-29,300
Nov. 30	5,321.55	212,600	-900
Dec. 31	5,321.19	211,100	-1,500
CAL YR 1979	-	-	-54,600
Jan. 31	5,321.44	212,100	+1,000
Feb. 29	5,322.00	214,400	+2,300
Mar. 31	5,322.55	216,800	+2,400
Apr. 30	5,325.80	230,900	+14,100
May 31	5,343.86	323,100	+92,200
June 30	5,362.38	440,200	+117,100
July 31	5,356.25	399,200	-41,000
Aug. 31	5,343.21	319,400	-79,800
Sept. 30	5,342.18	313,600	-5,800
WTR YR 1980	-	-	+70,800

06364700 ANTELOPE CREEK NEAR TECKLA, WY

LOCATION.--Lat 43°29'08", long 105°13'39", in SW¼NE¼ sec.35, T.41 N., R.70 W., Converse County, Hydrologic Unit 10120101, on left bank 0.4 mi (0.6 km) downstream from Porcupine Creek, 9 mi (14 km) southeast of Teckla, and 18 mi (29 km) north of Bill.

DRAINAGE AREA.--959 mi² (2,484 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,450 ft (1,356 m), from topographic map.

REMARKS.--Records poor. Numerous small stockwater reservoirs above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,600 ft³/s (187 m³/s) May 18, 1978, gage height, 8.83 ft (2.691 m), from floodmark, from rating curve extended above 80 ft³/s (2.26 m³/s) on basis of slope-area measurement of peak flow and step-backwater method; no flow for several days in 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 70 ft³/s (1.98 m³/s) May 25, gage height, 1.99 ft (0.607 m); no flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.22	.32	.41	.33	2.6	8.4	3.6	8.1	.18	.01	.02
2	.15	.22	.34	.40	.35	2.9	9.0	3.2	16	.20	.00	.01
3	.18	.25	.38	.38	.39	2.6	10	2.8	6.3	.15	.00	.01
4	.18	.25	.42	.36	.42	2.4	10	2.5	5.2	.10	.00	.01
5	.20	.22	.48	.34	.46	2.3	11	2.8	6.6	.08	.00	.01
6	.18	.25	.50	.31	.42	2.7	9.7	3.7	7.1	.05	.00	.00
7	.18	.25	.51	.28	.39	4.0	9.4	3.4	7.1	.02	.00	.00
8	.18	.34	.51	.25	.40	5.2	7.7	2.5	6.9	.02	.01	.01
9	.18	.34	.51	.24	.50	5.8	8.7	1.7	6.6	.05	.01	.01
10	.18	.25	.50	.30	.43	8.4	8.4	1.3	6.0	.05	.01	.01
11	.20	.25	.45	.26	.41	12	8.4	3.0	5.2	.02	.01	.01
12	.22	.25	.41	.30	.40	12	7.1	6.0	4.5	.05	.00	.01
13	.22	.34	.42	.40	.45	9.5	8.1	8.7	4.1	.05	.01	.01
14	.22	.25	.42	.70	.40	14	8.7	10	3.2	.05	.02	.01
15	.22	.25	.42	.60	.35	14	8.4	5.5	2.6	.05	1.2	.00
16	.22	.25	.40	.48	.37	8.1	7.7	3.0	2.5	.02	4.9	.01
17	.22	.25	.47	.38	.45	7.6	6.6	1.5	2.3	.02	.08	.01
18	.25	.25	.60	.30	.64	7.1	6.9	2.2	2.0	.05	.02	.01
19	.25	.25	.58	.26	.90	7.1	6.9	2.5	1.9	.01	.01	.01
20	.25	.25	.55	.24	.95	6.3	6.6	2.6	1.7	.02	.01	.01
21	.22	.24	.52	.25	1.0	7.1	6.0	2.5	1.5	.01	.01	.01
22	.22	.25	.49	.26	1.0	7.4	5.8	2.6	1.3	.01	.01	.01
23	.22	.25	.47	.50	.92	6.6	5.5	2.0	.90	.02	.01	.01
24	.22	.25	.45	.80	.90	8.1	5.8	2.0	.62	.02	.01	.02
25	.22	.25	.43	.50	1.1	6.6	4.7	19	.53	.05	.01	.02
26	.20	.24	.43	.40	1.5	6.9	4.3	3.6	.34	.05	.01	.02
27	.20	.24	.42	.31	2.4	5.8	4.3	3.9	.22	.02	.01	.02
28	.20	.23	.42	.26	2.8	7.1	3.9	4.7	.20	.01	.00	.02
29	.22	.26	.42	.27	2.7	6.9	3.6	5.0	.20	.01	.01	.02
30	.25	.29	.43	.29	---	7.4	3.2	5.8	.15	.01	.14	.02
31	.22	---	.42	.31	---	7.4	---	5.5	---	.01	.02	---
TOTAL	6.39	7.68	14.09	11.34	23.73	213.9	214.8	129.1	111.86	1.46	6.54	.35
MEAN	.21	.26	.45	.37	.82	6.90	7.16	4.16	3.73	.047	.21	.012
MAX	.25	.34	.60	.80	2.8	14	11	19	16	.20	4.9	.02
MIN	.12	.22	.32	.24	.33	2.3	3.2	1.3	.15	.01	.00	.00
AC-FT	13	15	28	22	47	424	426	256	222	2.9	13	.7

CAL YR 1979 TOTAL 2594.47 MEAN 7.11 MAX 224 MIN .10 AC-FT 5150
WTR YR 1980 TOTAL 741.24 MEAN 2.03 MAX 19 MIN .00 AC-FT 1470

06364700 ANTELOPE CREEK NEAR TECKLA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 04...	1125	.21	2220	8.0	16.0	--	9.1	107	K8	35	1100
NOV 13...	0915	.32	2490	7.9	3.0	--	10.7	92	K6	K2	1200
DEC 05...	1410	.48	2620	7.7	5.0	--	9.6	88	K2	K11	1100
JAN 09...	1020	.24	2220	7.8	.5	--	8.9	73	K2	K10	1000
FEB 06...	1430	.42	2500	7.8	4.0	--	9.0	80	K16	K18	1100
MAR 13...	1730	25	1800	8.0	4.0	--	11.0	97	K14	K36	690
APR 10...	0930	9.0	2200	8.2	3.5	--	11.0	101	21	39	870
10...	1215	--	2700	8.2	11.0	5	9.2	--	--	--	--
MAY 06...	1440	3.7	2540	8.1	25.0	--	7.4	104	300	88	950
29...	1440	--	--	--	--	--	--	--	--	--	--
JUN 05...	0905	6.5	2220	8.2	18.0	--	--	--	100	72	880
JUL 09...	1445	.03	2125	7.7	30.0	--	6.7	102	57	250	990
AUG 13...	1345	.02	2070	8.0	26.0	--	7.7	110	150	K22	950
19...	1655	.03	2160	7.8	27.5	--	5.6	--	--	--	950
SEP 25...	1100	.06	2120	8.1	15.0	--	8.6	98	K8	K9	970

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 04...	660	240	110	170	2.5	19	480	0	390	980
NOV 13...	810	300	110	210	2.6	16	480	0	390	1100
DEC 05...	700	250	110	240	3.2	15	460	0	380	1200
JAN 09...	570	240	100	190	2.6	16	540	0	440	900
FEB 06...	750	270	110	230	3.0	14	460	0	370	1200
MAR 13...	460	170	64	170	3.1	7.9	280	0	230	820
APR 10...	620	210	83	230	3.4	9.2	300	0	240	1000
10...	--	--	--	--	--	--	--	--	--	--
MAY 06...	720	230	91	280	4.0	15	280	0	230	1200
29...	--	--	--	--	--	--	--	--	--	--
JUN 05...	650	220	81	220	3.2	12	280	0	230	1100
JUL 09...	580	240	95	170	2.4	21	500	0	410	910
AUG 13...	550	220	98	160	2.3	19	490	0	400	870
19...	560	230	92	170	2.4	8.5	--	--	390	850
SEP 25...	540	230	96	150	2.1	17	530	0	430	870

06364700 ANTELOPE CREEK NEAR TECKLA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
OCT										
04...	9.5	.7	21	1770	1790	2.43	1.02	.06	--	.040
NOV										
13...	18	.6	20	2170	2010	2.73	1.74	.02	.01	.060
DEC										
05...	16	.5	19	2200	2080	2.83	2.70	.03	.01	.060
JAN										
09...	9.7	.7	23	1810	1750	2.38	1.13	.02	.02	.090
FEB										
06...	20	.5	22	2170	2090	2.84	2.37	.05	.05	.110
MAR										
13...	17	.3	6.5	1460	1400	1.90	94.5	.03	.03	.020
APR										
10...	21	.3	7.8	1890	1710	2.33	41.6	.01	.01	.040
10...	--	--	--	--	--	--	--	--	--	--
MAY										
06...	24	.5	12	2220	1990	2.71	19.9	.02	.03	.060
29...	--	--	--	--	--	--	--	--	--	--
JUN										
05...	6.9	.4	10	1820	1790	2.43	31.4	.03	.01	.000
JUL										
09...	7.9	1.1	17	1760	1710	2.33	.14	.00	.00	.000
AUG										
13...	6.9	.5	16	--	1630	2.22	.09	.00	.00	.010
19...	7.8	.8	16	--	1610	2.19	.13	--	.00	--
SEP										
25...	6.5	.8	23	1580	1660	2.26	.27	.00	.00	.020

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)
OCT										
04...	.05	.62	.66	.72	3.2	.000	.00	.000	9.2	.4
NOV										
13...	.07	.29	.35	.37	1.6	.010	.03	.040	14	.1
DEC										
05...	.07	1.3	1.4	1.4	6.3	.000	.00	.000	8.4	.2
JAN										
09...	.11	.52	.61	.63	2.8	.010	.03	.010	17	.8
FEB										
06...	.13	.38	.49	.54	2.4	.010	.03	.000	--	--
MAR										
13...	.02	.68	.70	.73	3.2	.080	.25	.010	11	.7
APR										
10...	.05	.48	.52	.53	2.3	.060	.18	.010	13	.2
10...	--	--	--	--	--	--	--	--	--	--
MAY										
06...	.07	.82	.88	.90	4.0	.010	.03	.010	6.5	.2
29...	--	--	--	--	--	--	--	--	--	--
JUN										
05...	.00	.50	.50	.53	2.3	.010	.03	.010	13	.5
JUL										
09...	.00	.50	.50	.50	2.2	.040	.12	.000	6.4	.1
AUG										
13...	.01	.46	.47	.47	2.1	.010	.03	.020	76	1.0
19...	--	--	--	--	--	.010	.03	--	--	--
SEP										
25...	.02	.46	.48	.48	2.1	.010	.03	.010	7.8	.2

06364700 ANTELOPE CREEK NEAR TECKLA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
OCT										
04...	--	--	1000	--	--	--	--	--	75	.04
NOV										
13...	--	--	520	.630	.790	75.5	2.12	.300	82	.07
DEC										
05...	.00	5	560	--	--	--	--	--	126	.16
JAN										
09...	--	1	1000	--	--	--	--	--	63	.04
FEB										
06...	--	2	120	--	--	--	--	--	56	.06
MAR										
13...	.00	4	4300	--	--	--	--	--	--	--
APR										
10...	--	5	1100	--	--	--	--	--	54	1.3
10...	--	--	--	--	--	--	--	--	--	--
MAY										
06...	--	26	8900	--	--	--	--	--	38	.38
29...	--	--	--	--	--	--	--	--	72	--
JUN										
05...	--	4	1600	--	--	--	--	--	91	1.6
JUL										
09...	--	2	19000	--	--	--	--	--	27	.00
AUG										
13...	--	3	7600	16.1	22.3	727	8.53	1.91	25	.00
19...	--	--	--	--	--	--	--	--	--	--
SEP										
25...	--	4	170	--	--	--	--	--	29	.00

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BARIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS BA)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)
OCT											
04...	1125	0	1	0	1	4	100	--	100	40	0
NOV											
13...	0915	--	--	--	--	--	--	--	--	--	--
DEC											
05...	1410	--	--	--	--	--	--	--	--	--	--
JAN											
09...	1020	--	--	--	--	--	--	--	--	--	--
FEB											
06...	1430	--	--	--	--	--	--	--	--	--	--
MAR											
13...	1730	10	1	0	1	1	300	300	40	40	0
APR											
10...	0930	--	--	--	--	--	--	--	--	--	--
MAY											
06...	1440	--	--	--	--	--	--	--	--	--	--
JUN											
05...	0905	--	--	--	--	--	--	--	--	--	--
JUL											
09...	1445	--	--	--	--	--	--	--	--	--	--
AUG											
13...	1345	--	--	--	--	--	--	--	--	--	--
SEP											
25...	1100	--	--	--	--	--	--	--	--	--	--

06364700 ANTELOPE CREEK NEAR TECKLA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	BERYL-LIUM, SUS-PENDED RECOV. (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BERYL-LIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
OCT 04...	--	<1	0	310	7	--	<1	0	10	0	10
NOV 13...	--	--	--	230	--	--	--	--	--	--	--
DEC 05...	--	--	--	190	--	--	--	--	--	--	--
JAN 09...	--	--	--	290	--	--	--	--	--	--	--
FEB 06...	--	--	--	180	--	--	--	--	--	--	--
MAR 13...	0	<1	0	60	0	0	2	0	0	0	0
APR 10...	--	--	--	80	--	--	--	--	--	--	--
MAY 06...	--	--	--	110	--	--	--	--	--	--	--
JUN 05...	--	--	--	130	--	--	--	--	--	--	--
JUL 09...	--	--	--	390	--	--	--	--	--	--	--
AUG 13...	--	--	--	400	--	--	--	--	--	--	--
SEP 25...	--	--	--	230	--	--	--	--	--	--	--

DATE	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
OCT 04...	2	0	--	<3	0	4	--	<10	1	10	140
NOV 13...	--	--	--	--	--	--	--	--	--	30	--
DEC 05...	--	--	--	--	--	--	--	--	--	130	--
JAN 09...	--	--	--	--	--	--	--	--	--	40	--
FEB 06...	--	--	--	--	--	--	--	--	--	10	--
MAR 13...	2	0	0	<3	10	6	0	<10	4	18	4
APR 10...	--	--	--	--	--	--	--	--	--	20	--
MAY 06...	--	--	--	--	--	--	--	--	--	20	--
JUN 05...	--	--	--	--	--	--	--	--	--	20	--
JUL 09...	--	--	--	--	--	--	--	--	--	30	--
AUG 13...	--	--	--	--	--	--	--	36	--	30	--
SEP 25...	--	--	--	--	--	--	--	--	--	30	--

06364700 ANTELOPE CREEK NEAR TECKLA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM SUS-PENDED RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
OCT 04...	110	33	0	50	--	51	190	--	130	150	.4
NOV 13...	--	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--	--
JAN 09...	--	--	--	--	--	--	--	--	--	--	--
FEB 06...	--	--	--	--	--	--	--	--	--	--	--
MAR 13...	0	22	0	30	0	43	190	180	12	310	.4
APR 10...	--	--	--	--	--	--	--	--	--	--	--
MAY 06...	--	--	--	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--
AUG 13...	--	--	--	--	--	--	--	--	--	--	--
SEP 25...	--	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, SUS-PENDED RECOV. (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	MOLYB-DENUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)
OCT 04...	.1	.3	.00	1	1	0	0	4	2	2	0
NOV 13...	--	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--	--
JAN 09...	--	--	--	--	--	--	--	--	--	--	--
FEB 06...	--	--	--	--	--	--	--	--	--	--	--
MAR 13...	.0	.4	.01	0	0	<10	0	5	5	0	10
APR 10...	--	--	--	--	--	--	--	--	--	--	--
MAY 06...	--	--	--	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--	--
AUG 13...	--	--	--	--	--	--	--	--	--	--	--
SEP 25...	--	--	--	--	--	--	--	--	--	--	--

06364700 ANTELOPE CREEK NEAR TECKLA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
OCT 04...	0	0	0	0	2800	<6.0	10	--	<3	9
NOV 13...	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--
JAN 09...	--	--	--	--	--	--	--	--	--	--
FEB 06...	--	--	--	--	--	--	--	--	--	--
MAR 13...	0	0	0	0	2100	<6.0	90	90	5	18
APR 10...	--	--	--	--	--	--	--	--	--	--
MAY 06...	--	--	--	--	--	--	--	--	--	--
JUN 05...	--	--	--	--	--	--	--	--	--	--
JUL 09...	--	--	--	--	--	--	--	--	--	--
AUG 13...	--	--	--	--	--	--	--	--	--	--
SEP 25...	--	--	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT 04...	1125	<27	<.4	23	<.4	23	<.4	<18	<.3
MAR 13...	1730	<23	5.3	14	4.4	14	4.4	<16	3.6

DATE	TIME	TEMPERATURE, WATER (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
MAR 13...	1730	4.0	25	62	84	100

06364700 ANTELOPE CREEK NEAR TECKLA, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	OCT 4,79	NOV 13,79	DEC 5,79	JAN 9,80	FEB 6,80	MAR 13,80
TIME	1125	0915	1410	1020	1430	1730
TOTAL CELLS/ML	1000	520	560	1000	120	4300
DIVERSITY: DIVISION	1.6	0.9	1.2	0.6	0.5	0.9
.CLASS	1.6	0.9	1.2	0.6	0.5	0.9
..ORDER	1.6	1.0	1.4	0.6	0.5	0.9
...FAMILY	2.3	1.8	1.8	1.0	0.5	1.9
....GENUS	2.3	1.8	2.5	1.0	0.5	2.2

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	--	-	--	-	--	-	43	1
....CLOSTERIOPSIS	--	-	--	-	--	-	--	-	--	-	29	1
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	41	7	--	-	--	-	--	-
...SCENEDESMACEAE												
....SCENEDESMUS	--	-	--	-	--	-	--	-	--	-	--	-
..OEDOGONIALES												
...OEDOGONIACEAE												
....OEDOGONIUM	--	-	--	-	--	-	--	-	--	-	--	-
..TETRASPORALES												
...COCCOMYXACEAE												
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CARTERIA	330#	32	--	-	82	15	--	-	--	-	--	-
....CHLAMYDOMONAS	--	-	--	-	14	2	--	-	15	13	43	1
....PLATYMONAS	--	-	--	-	--	-	130	13	--	-	--	-
..ZYGNEMATALES												
...DESMIDIACEAE												
....STAURASTRUM	--	-	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	14	3	--	-	--	-	--	-	--	-
....MELOSIRA	--	-	--	-	--	-	--	-	--	-	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	--	-	--	-	100	2
...CYMBELLACEAE												
....CYMBELLA	--	-	14	3	--	-	19	2	--	-	29	1
....RHOPALODIA	--	-	--	-	--	-	--	-	--	-	--	-
...DIATOMACEAE												
....DIATOMA	--	-	--	-	--	-	--	-	--	-	--	-
...EUNOTIACEAE												
....EUNOTIA	--	-	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE												
....SYNEDRA	72	7	96#	18	14	2	37	4	--	-	58	1
...GOMPHONEMATACEAE												
....GOMPHONEMA	--	-	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE												
....ENTOMONEIS	--	-	--	-	--	-	--	-	--	-	--	-
....NAVICULA	57	5	14	3	41	7	820#	81	110#	88	--	-
....PLAGIOTROPIS	--	-	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE												
....NITZSCHIA	160#	15	14	3	--	-	9	1	--	-	550	13
.CHRYSOPHYCEAE												
..CHRYSOMONADALES												
...OCHROMONADACEAE												
....OCHROMONAS	--	-	--	-	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOMONADACEAE												
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06364700 ANTELOPE CREEK NEAR TECKLA, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	OCT 4,79		NOV 13,79		DEC 5,79		JAN 9,80		FEB 6,80		MAR 13,80	
TIME	1125		0915		1410		1020		1430		1730	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....AGMENELLUM	--	-	--	-	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES												
...NOSTOCACEAE												
....ANABAENA	--	-	69	13	41	7	--	-	--	-	--	-
....APHANIZOMENON	290#	27	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE												
....LYNGBYA	140	14	--	-	140#	24	--	-	--	-	--	-
....OSCILLATORIA	--	-	300#	58	190#	34	--	-	--	-	1300#	30
....PHORMIDIUM	--	-	--	-	--	-	--	-	--	-	400	9
...SCYTONEMATACEAE												
....PLECTONEMA	--	-	--	-	--	-	--	-	--	-	1700#	41
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	--	-	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-	*	0

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06364700 ANTELOPE CREEK NEAR TECKLA, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	APR 10,80		MAY 6,80		JUN 5,80		JUL 9,80		AUG 13,80		SEP 25,80	
TIME	0930		1440		0905		1445		1345		1100	
TOTAL CELLS/ML	1100		8900		1600		19000		7600		170	
DIVERSITY: DIVISION	0.7		1.4		1.6		0.4		0.7		1.1	
.CLASS	0.7		1.4		1.7		0.4		0.7		1.1	
..ORDER	0.7		1.6		2.5		0.6		1.0		1.4	
...FAMILY	1.3		2.0		3.2		1.0		1.3		2.0	
....GENUS	1.4		2.1		3.6		1.0		1.3		2.0	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	64	1	82	5	130	1	--	-	--	-
....CLOSTERIOPSIS	--	-	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	55	4	--	-	--	-	26#	15
....KIRCHNERIELLA	--	-	4800#	54	27	2	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	41	3	--	-	--	-	--	-
...SCENEDESMACEAE												
....SCENEDESMUS	--	-	130	1	--	-	--	-	--	-	--	-
..OEDOGONIALES												
...OEDOGONIACEAE												
....OEDOGONIUM	--	-	--	-	--	-	--	-	77	1	--	-
..TETRASPORALES												
...COCCOMYXACEAE												
....ELAKATOTHRIX	--	-	--	-	55	4	--	-	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CARTERIA	--	-	--	-	150	10	--	-	--	-	--	-
....CHLAMYDOMONAS	110	10	190	2	--	-	*	0	--	-	13	8
....PLATYMONAS	--	-	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES												
...DESMIDIACEAE												
....STAURASTRUM	--	-	--	-	--	-	*	0	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	*	0	55	4	*	0	*	0	--	-
....MELOSIRA	--	-	*	0	--	-	--	-	--	-	--	-
....STEPHANODISCUS	--	-	--	-	14	1	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	*	0	120	8	*	0	77	1	--	-
...CYMBELLACEAE												
....CYMBELLA	30	3	130	1	27	2	*	0	*	0	--	-
....RHOPALODIA	--	-	--	-	41	3	--	-	--	-	--	-
...DIATOMACEAE												
....DIATOMA	--	-	64	1	--	-	--	-	*	0	--	-
...EUNOTIACEAE												
....EUNOTIA	10	1	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE												
....SYNEDRA	20	2	95	1	27	2	790	4	150	2	--	-
...COMPHONEMATACEAE												
....COMPHONEMA	10	1	--	-	--	-	*	0	--	-	--	-
...NAVICULACEAE												
....ENTOMONEIS	--	-	*	0	--	-	--	-	--	-	--	-
....NAVICULA	20	2	95	1	41	3	*	0	440	6	39#	23
....PLAGIOTROPIS	20	2	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE												
....NITZSCHIA	810#	76	2400#	26	440#	28	350	2	320	4	77#	46
.CHRYSOPHYCEAE												
..CHRYSOMONADALES												
...OCHROMONADACEAE												
....OCHROMONAS	--	-	--	-	27	2	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOMONADACEAE												
....CRYPTOMONAS	--	-	--	-	14	1	--	-	*	0	13	8

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06364700 ANTELOPE CREEK NEAR TECKLA, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	APR 10,80		MAY 6,80		JUN 5,80		JUL 9,80		AUG 13,80		SEP 25,80	
TIME	0930		1440		0905		1445		1345		1100	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....AGMENELLUM	--	-	--	-	220	14	470	2	100	1	--	-
....ANACYSTIS	--	-	350	4	27	2	*	0	360	5	--	-
..HORMOGONALES												
...NOSTOCACEAE												
....ANABAENA	--	-	--	-	--	-	740	4	--	-	--	-
....APHANIZOMENON	--	-	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE												
....LYNGBYA	--	-	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	480	5	82	5	17000#	86	6000#	79	--	-
....PHORMIDIUM	--	-	--	-	--	-	--	-	--	-	--	-
...SCYTONEMATACEAE												
....PLECTONEMA	--	-	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	20	2	--	-	14	1	*	0	--	-	--	-
....TRACHELOMONAS	10	1	64	1	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06365300 DRY FORK CHEYENNE RIVER NEAR BILL, WY

LOCATION.--Lat 43°13'21", long 105°40'00", in NE¼NW¼SE¼, sec.31, T.38 N., R.73 W., Converse County, Hydrologic Unit 10120102, 800 ft (244 m) downstream from Cheyenne River Draw and 21 mi (34 km) west of Bill.

DRAINAGE AREA.--128 mi² (332 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1976 to current year.

GAGE.--Water-stage recorder. Concrete low-flow control since Sept. 15, 1977. Altitude of gage is 5,060 ft (1,542 m), from topographic map. Prior to Sept. 15, 1977, at site 700 ft (213 m) upstream at datum 4.1 ft (1.25 m) higher.

REMARKS.--Records poor. Numerous small stockwater reservoirs above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,010 ft³/s (28.6 m³/s) May 18, 1978, gage height, 4.01 ft (1.222 m); no flow for several days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31 ft³/s (0.878 m³/s) May 31, gage height, 1.72 ft (0.524 m); maximum gage height, 2.23 ft (0.680 m) Feb. 22 (backwater from ice); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.16	.16	.08	.00	.99	.35	.19	.70	.00	.00	.00
2	.03	.16	.21	.06	.00	1.2	.31	.18	6.5	.00	.00	.00
3	.03	.18	.25	.03	.00	.86	.37	.16	3.0	.00	.00	.00
4	.03	.19	.30	.01	.04	.63	.50	.23	.54	.00	.00	.00
5	.03	.18	.28	.00	.06	.50	.70	.73	.25	.00	.00	.00
6	.04	.16	.27	.00	.06	.57	.60	.32	.16	.00	.00	.00
7	.04	.16	.25	.00	.06	.66	.46	.19	.14	.00	.00	.00
8	.04	.15	.27	.00	.02	.76	.37	.15	.13	.00	.00	.00
9	.05	.14	.29	.00	.02	.89	.32	.14	.11	.00	.00	.00
10	.06	.13	.25	.00	.03	.98	.30	.15	.10	.00	.00	.00
11	.06	.14	.18	.00	.03	1.1	.32	.77	.08	.00	.00	.00
12	.06	.14	.09	.00	.03	.73	.36	2.0	.06	.00	.00	.00
13	.07	.15	.04	.03	.02	.54	.30	4.6	.03	.00	.00	.02
14	.07	.13	.07	.07	.00	.44	.25	8.5	.01	.00	.00	.03
15	.07	.14	.08	.08	.00	.36	.23	3.3	.00	.00	.00	.01
16	.08	.14	.02	.07	.00	.30	.19	2.4	.00	.00	.00	.01
17	.09	.14	.06	.04	.06	.26	.18	1.4	.03	.00	.00	.02
18	.10	.13	.10	.04	.23	.28	.16	.89	.01	.00	.00	.01
19	.10	.13	.13	.02	.79	.28	.15	.54	.00	.00	.00	.01
20	.10	.16	.17	.00	6.0	.30	.15	.36	.01	.00	.00	.02
21	.10	.21	.14	.00	10	.28	.14	.27	.01	.00	.00	.03
22	.10	.23	.11	.02	6.4	.30	.13	.19	.00	.00	.00	.03
23	.09	.23	.10	.04	3.6	.27	.13	.16	.00	.00	.00	.03
24	.09	.23	.02	.06	2.2	.27	.15	.84	.00	.00	.00	.03
25	.09	.27	.06	.04	1.2	.27	.15	7.8	.00	.00	.00	.03
26	.09	.28	.11	.00	1.1	.27	.15	1.9	.00	.00	.00	.03
27	.09	.25	.10	.00	1.7	.25	.15	.36	.00	.00	.00	.03
28	.09	.23	.04	.00	1.9	.32	.15	.21	.00	.00	.00	.03
29	.11	.23	.06	.00	1.6	.42	.18	.16	.00	.00	.00	.03
30	.16	.24	.05	.00	---	.46	.21	.18	.00	.00	.00	.03
31	.18	---	.06	.00	---	.39	---	2.6	---	.00	.00	---
TOTAL	2.36	5.41	4.32	.69	37.15	16.13	8.11	41.87	11.87	.00	.00	.43
MEAN	.076	.18	.14	.022	1.28	.52	.27	1.35	.40	.000	.000	.014
MAX	.18	.28	.30	.08	10	1.2	.70	8.5	6.5	.00	.00	.03
MIN	.02	.13	.02	.00	.00	.25	.13	.14	.00	.00	.00	.00
AC-FT	4.7	11	8.6	1.4	74	32	16	83	24	.00	.00	.9

CAL YR 1979 TOTAL 136.50 MEAN .37 MAX 14 MIN .00 AC-FT 271
WTR YR 1980 TOTAL 128.34 MEAN .35 MAX 10 MIN .00 AC-FT 255

06365300 DRY FORK CHEYENNE RIVER NEAR BILL, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1977 to current year.

REMARKS.--No flow observed Oct. 10.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV										
06...	0815	.16	2600	7.5	1.0	10	12.2	2.6	--	--
29...	1110	.23	2200	7.6	.0	3	6.6	1.5	--	--
DEC										
19...	1000	.06	1900	8.0	.5	--	7.7	.6	39	150
MAR										
12...	0950	.89	1460	--	.0	10	10.3	.9	--	--
APR										
17...	1100	.18	1500	--	11.0	5	9.8	1.4	--	--
MAY										
13...	1215	4.0	1800	--	10.5	3	10.3	--	--	--
JUN										
10...	1130	.10	1360	--	19.5	3	7.7	--	--	--
JUL										
01...	1530	.10	--	--	--	--	--	--	--	--

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
NOV									
06...	1500	1200	350	160	100	1.1	14	360	1200
29...	1000	550	220	110	88	1.2	17	450	780
DEC									
19...	880	430	200	93	64	.9	14	450	540
MAR									
12...	810	510	180	87	55	.8	11	300	520
APR									
17...	800	530	180	86	61	.9	10	270	630
MAY									
13...	900	660	180	110	66	1.0	13	240	730
JUN									
10...	660	340	130	82	48	.8	11	320	450
JUL									
01...	1300	1200	240	180	120	1.4	15	110	1400

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
NOV									
06...	24	.6	10	2080	2.83	.90	.01	--	.070
29...	16	.5	16	1520	2.07	.94	.07	--	.020
DEC									
19...	12	.5	18	1210	1.65	.20	.05	--	.020
MAR									
12...	10	.6	10	1050	1.43	2.52	.00	--	.000
APR									
17...	11	.6	8.5	1150	1.56	.56	.01	--	.000
MAY									
13...	13	.4	8.4	1270	1.73	13.7	.01	--	.030
JUN									
10...	5.3	.2	5.3	924	1.26	.25	.00	--	.040
JUL									
01...	28	.5	.5	2050	2.79	.55	--	.00	--

06365300 DRY FORK CHEYENNE RIVER NEAR BILL, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
NOV 06...	.08	.53	.60	.61	2.7	.020	.06	--	--
29...	.02	.56	.58	.65	2.9	.000	.00	--	--
DEC 19...	.02	.49	.51	.56	2.5	.030	.09	--	--
MAR 12...	.00	.53	.53	.53	2.3	.060	.18	.00	18
APR 17...	.00	.54	.54	.55	2.4	.030	.09	--	1
MAY 13...	.04	.96	.99	1.0	4.4	.030	.09	--	--
JUN 10...	.05	.84	.88	.88	3.9	.010	.03	.00	--
JUL 01...	--	--	--	--	--	--	--	--	--

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
NOV 06...	0815	150	150	0	1	0	1	0	0	0	180	4
29...	1110	--	--	--	--	--	--	--	--	--	150	--
DEC 19...	1000	--	--	--	--	--	--	--	--	--	300	--
MAR 12...	0950	40	40	0	2	0	2	0	0	<1	110	0
APR 17...	1100	--	--	--	--	--	--	--	--	--	140	--
MAY 13...	1215	20	--	--	2	--	--	0	--	--	160	0
JUN 10...	1130	--	--	--	--	--	--	--	--	--	160	--
JUL 01...	1530	--	--	--	--	--	--	--	--	--	--	--

DATE	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
NOV 06...	0	5	0	0	8	0	0	0	310	--	70	7
29...	--	--	--	--	--	--	--	--	--	--	30	--
DEC 19...	--	--	--	--	--	--	--	--	--	--	40	--
MAR 12...	0	<1	0	0	0	1	0	6	260	230	30	0
APR 17...	--	--	--	--	--	--	--	--	--	--	30	--
MAY 13...	--	--	0	--	--	4	--	--	190	150	40	2
JUN 10...	--	--	--	--	--	--	--	--	--	--	30	--
JUL 01...	--	--	--	--	--	--	--	--	--	--	60	--

06365300 DRY FORK CHEYENNE RIVER NEAR BILL, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM SUS-PENDED RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)
NOV 06...	7	0	40	10	30	110	20	90	.1	.1	.0	0
29...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 19...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 12...	0	2	30	0	40	170	0	180	.0	.0	.0	0
APR 17...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	30	--	--	20	--	--	.1	--	--	0
JUN 10...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	20	--	--	--	--

DATE	MOLYB-DENUM, SUS-PENDED RECOV. (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV 06...	0	0	7	4	3	0	0	0	1.0	110	50	60
29...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 19...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 12...	0	<10	0	0	1	0	0	0	.0	20	20	4
APR 17...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	6	--	--	0	--	--	--	10	--	--
JUN 10...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	0	--	--	--	--

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
NOV 06...	0815	<33	<.4	16	1.4	17	1.5	.31	18	<22	<.3
MAR 12...	0950	<20	<.4	10	.7	11	.7	.24	11	<14	<.3
JUL 01...	1530	<27	--	14	--	14	--	.18	11	<18	--

06365300 DRY FORK CHEYENNE RIVER NEAR BILL, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
OCT											
25...	1330	9.5	.10	40	.01	--	--	--	--	--	--
NOV											
29...	1110	.0	.23	111	.07	--	--	--	--	--	--
DEC											
19...	1000	.5	.06	104	.02	--	--	--	--	--	--
FEB											
21...	1715	.5	12	2110	68	--	--	--	--	--	--
MAR											
12...	0950	.0	.89	86	.21	44	54	67	82	96	100
APR											
17...	1100	11.0	.18	59	.03	55	59	65	84	99	100
MAY											
13...	1215	10.5	4.0	18	.19	--	--	--	--	--	--
15...	1130	11.5	3.2	13	.11	--	--	--	--	--	--
JUN											
10...	1130	19.5	.10	46	.01	--	--	--	--	--	--

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY

LOCATION.--Lat 43°25'45", long 105°02'43", in SE¼SW¼NE¼ sec.20, T.40 N., R.68 W., Converse County, Hydrologic Unit 10120103, Thunder Basin National Grassland, on right bank at the Fiddleback Ranch, 1.2 mi (1.9 km) downstream from confluence of Antelope Creek and Dry Fork Cheyenne River, and 3.0 mi (4.8 km) west of Dull Center.

DRAINAGE AREA.--1,527 mi^2 (3,955 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,310 ft (1,314 m), from topographic map. Prior to June 16, 1978, at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records fair except those for winter period, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft^3/s (334 m^3/s) May 18, 1978, gage height, 14.0 ft (4.27 m), present datum, from rating curve extended above 1,700 ft^3/s (48.1 m^3/s) on basis of slope-area measurement of peak flow; no flow for several days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 775 ft^3/s (21.9 m^3/s) Aug. 15, gage height, 4.43 ft (1.350 m); no flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	.29	.25	.12	.08	1.3	5.8	1.7	5.8	.15	.10	1.7
2	.25	.29	.25	.09	.14	1.4	7.4	1.7	12	.21	.10	.95
3	.21	.25	.26	.07	.16	2.5	9.9	1.7	9.9	.12	.07	.25
4	.21	.25	.26	.05	.18	1.8	10	1.9	6.2	.10	.07	.29
5	.25	.25	.26	.03	.18	1.3	9.4	3.0	4.7	.10	.10	.21
6	.25	.25	.26	.02	.18	1.8	9.4	2.5	5.7	.07	.08	.21
7	.25	.21	.26	.01	.18	3.0	8.9	2.7	8.4	.09	.08	.23
8	.29	.21	.25	.00	.18	5.1	7.9	3.0	3.8	.10	.08	.19
9	.29	.29	.23	.00	.18	5.4	7.4	3.2	3.0	.08	.10	.15
10	.29	.21	.22	.02	.17	19	7.2	2.7	2.3	.07	.29	.18
11	.25	.21	.22	.01	.17	23	7.2	6.2	1.6	.07	.40	.19
12	.25	.21	.23	.02	.16	11	6.0	12	1.2	.07	.09	.17
13	.25	.25	.24	.03	.16	8.4	6.6	17	.62	.07	.08	.14
14	.25	.21	.23	.06	.15	13	7.0	18	.54	.07	.07	.16
15	.25	.21	.22	.05	.16	14	7.0	19	.40	.06	175	.16
16	.29	.21	.23	.04	.19	8.9	6.8	23	.40	.06	198	.16
17	.29	.21	.25	.03	1.0	7.9	6.0	18	.34	.05	14	.16
18	.34	.25	.28	.02	10	8.4	4.8	12	.34	.06	7.9	.19
19	.47	.25	.27	.02	60	7.4	4.4	9.4	.40	.06	4.0	.18
20	.72	.25	.26	.02	50	7.0	4.1	7.4	.34	.06	2.7	.16
21	.72	.25	.24	.03	36	6.6	3.9	6.6	.34	.05	1.7	.15
22	.72	.25	.23	.04	20	6.2	3.2	5.4	1.2	.08	1.1	.15
23	.40	.25	.23	.05	10	6.2	2.5	4.7	.29	.07	.95	.15
24	.29	.25	.23	.05	6.0	5.8	3.2	7.4	.21	.05	.95	.18
25	.29	.24	.23	.04	5.0	5.4	2.7	86	.18	19	.62	.18
26	.29	.23	.22	.03	7.0	5.8	2.5	25	.18	48	.54	.21
27	.29	.22	.20	.02	20	4.4	2.7	9.4	.12	4.4	.29	.19
28	.29	.22	.19	.03	10	5.4	2.3	6.2	.15	.47	.34	.20
29	.40	.23	.18	.04	5.0	5.8	2.1	6.2	.18	.21	.29	.18
30	.34	.24	.17	.06	---	5.1	2.1	6.6	.18	.15	5.6	.21
31	.29	---	.15	.07	---	4.4	---	5.4	---	.12	7.7	---
TOTAL	10.22	7.14	7.20	1.17	242.62	212.7	170.4	335.0	71.01	74.32	423.39	7.83
MEAN	.33	.24	.23	.038	8.37	6.86	5.68	10.8	2.37	2.40	13.7	.26
MAX	.72	.29	.28	.12	60	23	10	86	12	48	198	1.7
MIN	.21	.21	.15	.00	.08	1.3	2.1	1.7	.12	.05	.07	.14
AC-FT	20	14	14	2.3	481	422	338	664	141	147	840	16

CAL YR 1979 TOTAL 5069.04 MEAN 13.9 MAX 585 MIN .00 AC-FT 10050
WTR YR 1980 TOTAL 1563.00 MEAN 4.27 MAX 198 MIN .00 AC-FT 3100

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT												
03...	1230	.20	2960	8.3	16.0	--	9.6	112	--	K14	22	1200
10...	1140	--	3200	8.2	13.0	1	9.9	--	2.8	--	--	1200
NOV												
13...	1315	.24	2920	8.0	3.5	--	12.0	104	--	K2	K16	1200
DEC												
05...	0950	.26	3160	7.7	.0	--	9.4	75	--	K1	40	1200
FEB												
07...	1115	.18	3350	7.5	.5	--	7.2	59	--	K1	21	1400
MAR												
14...	1045	9.4	1950	7.9	4.0	--	11.1	102	--	K2	69	780
APR												
09...	1045	7.9	2360	8.2	8.0	--	11.9	129	--	K1	K2	960
09...	1500	--	3000	8.2	17.0	45	8.7	--	--	--	--	--
MAY												
06...	1400	--	3800	8.1	27.0	4	7.0	--	--	--	--	--
09...	1135	3.4	2670	8.2	26.0	--	6.9	91	--	20	32	1000
JUN												
04...	1430	--	2330	8.4	30.0	--	--	--	--	93	150	910
11...	1315	--	2200	7.6	31.0	--	6.3	--	--	--	--	1000
JUL												
09...	0915	.14	3150	7.9	22.0	--	7.9	103	--	240	340	1300
AUG												
13...	0915	.09	2930	8.2	17.0	--	8.4	102	--	640	490	1200
19...	1830	40	650	7.9	23.0	--	6.3	--	--	--	--	170
20...	1040	--	--	--	15.5	1000	8.0	--	--	--	--	--
SEP												
24...	1025	.17	2900	8.3	10.0	--	9.8	101	--	K8	460	1200
27...	1115	--	2850	8.0	18.5	4	8.2	--	--	--	--	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT												
03...	940	290	120	310	4.2	1.7	340	0	280	1500	32	.6
10...	860	280	110	340	4.4	17	--	--	290	1600	27	.5
NOV												
13...	930	290	120	310	3.9	14	350	0	290	1500	24	.5
DEC												
05...	870	240	140	370	4.7	15	370	0	300	1500	25	.5
FEB												
07...	1000	310	150	370	4.3	15	450	0	370	1800	32	.5
MAR												
14...	560	190	73	190	3.2	9.6	270	0	220	960	18	.4
APR												
09...	720	230	94	240	3.4	13	300	0	240	1100	21	.4
09...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
06...	--	--	--	--	--	--	--	--	--	--	--	--
09...	810	250	100	290	3.9	18	270	0	220	1300	24	.4
JUN												
04...	680	220	87	240	3.5	16	270	5	230	1100	5.0	.4
11...	780	240	97	270	3.7	18	--	--	220	1300	23	.0
JUL												
09...	980	300	130	340	4.1	20	370	0	300	1600	30	.3
AUG												
13...	920	290	120	310	3.9	19	360	0	290	1500	27	.5
19...	110	41	16	45	1.5	7.8	--	--	62	190	4.4	.3
20...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
24...	870	270	120	290	3.7	14	360	0	300	1500	26	.5
27...	--	--	--	--	--	--	--	--	--	--	--	--

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)
OCT											
03...	16	2550	2440	3.32	1.32	.01	--	.040	--	.05	--
10...	15	--	2560	3.48	--	.07	--	.150	--	.18	--
NOV											
13...	14	2530	2450	3.33	1.59	.01	.00	.030	--	.04	--
DEC											
05...	15	2890	2490	3.39	1.75	.02	.01	.090	--	.11	--
FEB											
07...	23	3050	2920	3.97	1.42	.02	.05	.080	--	.10	--
MAR											
14...	8.7	1610	1590	2.16	40.4	.05	.08	.020	--	.02	--
APR											
09...	11	2030	1860	2.53	39.4	.03	.03	.060	--	.07	--
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
06...	--	--	--	--	--	--	--	--	--	--	--
09...	17	2320	2130	2.90	19.6	.01	.02	.060	--	.07	--
JUN											
04...	14	1920	1820	2.48	--	.02	.01	.000	--	.00	--
11...	16	2170	2100	2.86	--	.01	.01	.030	.030	.04	.04
JUL											
09...	2.7	2810	2610	3.55	.99	.00	.00	.000	--	.00	--
AUG											
13...	11	--	2460	3.35	.60	.00	.00	.000	--	.00	--
19...	5.9	--	348	.47	37.6	--	.00	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
SEP											
24...	15	2470	2410	3.28	1.11	.00	.00	.000	--	.00	--
27...	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
OCT											
03...	1.6	--	1.6	--	--	1.6	--	7.1	.000	.00	.000
10...	.85	--	1.0	--	--	1.1	--	4.7	.000	.00	--
NOV											
13...	.40	--	.43	--	--	.44	--	1.9	.010	.03	.010
DEC											
05...	1.6	--	1.7	--	--	1.7	--	7.6	.000	.00	.000
FEB											
07...	.35	--	.43	--	--	.45	--	2.0	.010	.03	.000
MAR											
14...	.71	--	.73	--	--	.78	--	3.5	.090	.28	.010
APR											
09...	.41	--	.47	--	--	.50	--	2.2	.050	.15	.010
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
06...	--	--	--	--	--	--	--	--	--	--	--
09...	.66	--	.72	--	--	.73	--	3.2	.010	.03	.000
JUN											
04...	.62	--	.62	--	--	.64	--	2.8	.060	.18	.010
11...	.60	.51	.63	.09	.54	.64	.55	2.8	.010	.03	.000
JUL											
09...	.64	--	.64	--	--	.64	--	2.8	.040	.12	.000
AUG											
13...	.56	--	.56	--	--	.56	--	2.5	.020	.06	.010
19...	--	--	--	--	--	--	--	--	.260	.80	--
20...	--	--	--	--	--	--	--	--	--	--	--
SEP											
24...	.48	--	.48	--	--	.48	--	2.1	.010	.03	.010
27...	--	--	--	--	--	--	--	--	--	--	--

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED (MG/L AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2)
OCT											
03...	6.9	1.4	--	--	--	9200	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
NOV											
13...	11	--	--	--	--	1200	1.18	1.26	381	.210	.000
DEC											
05...	19	.2	--	.00	0	400	--	--	--	--	--
FEB											
07...	--	--	--	--	0	260	--	--	--	--	--
MAR											
14...	7.4	.5	--	.00	7	1700	--	--	--	--	--
APR											
09...	8.9	.3	--	--	1	1600	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
06...	--	--	--	--	--	--	--	--	--	--	--
09...	8.1	.2	--	--	5	4200	--	--	--	--	--
JUN											
04...	11	.8	--	--	4	1000	--	--	--	--	--
11...	9.8	.7	1.3	--	6	--	--	--	--	--	--
JUL											
09...	11	.1	--	--	4	5000	--	--	--	--	--
AUG											
13...	14	.4	--	--	6	1200	.709	.945	2360	.100	.000
19...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
SEP											
24...	8.9	.1	--	--	4	150	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDED RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS- PENDED TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, SUS- PENDED RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BARIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS BA)
OCT												
03...	1230	--	--	0	1	0	1	0	200	--	90	24
10...	1140	120	100	20	1	1	0	--	--	--	--	--
NOV												
13...	1315	--	--	--	--	--	--	--	--	--	--	--
DEC												
05...	0950	--	--	--	--	--	--	--	--	--	--	--
FEB												
07...	1115	--	--	--	--	--	--	--	--	--	--	--
MAR												
14...	1045	--	--	10	1	0	1	4	200	200	50	40
APR												
09...	1045	--	--	--	--	--	--	--	--	--	--	--
MAY												
09...	1135	--	--	--	--	--	--	--	--	--	--	--
JUN												
04...	1430	--	--	--	--	--	--	--	--	--	--	--
11...	1315	360	340	20	--	--	2	--	200	0	200	--
JUL												
09...	0915	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	0915	--	--	--	--	--	--	--	--	--	--	--
SEP												
24...	1025	--	--	--	--	--	--	--	--	--	--	--

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BERYL-LIUM, SUS-PENDED RECOV. (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BERYL-LIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
OCT												
03...	0	--	<1	0	120	6	--	<1	0	0	0	10
10...	0	0	0	--	110	4	0	5	--	0	0	10
NOV												
13...	--	--	--	--	90	--	--	--	--	--	--	--
DEC												
05...	--	--	--	--	100	--	--	--	--	--	--	--
FEB												
07...	--	--	--	--	110	--	--	--	--	--	--	--
MAR												
14...	0	0	<1	0	70	11	10	1	0	10	10	0
APR												
09...	--	--	--	--	100	--	--	--	--	--	--	--
MAY												
09...	--	--	--	--	130	--	--	--	--	--	--	--
JUN												
04...	--	--	--	--	130	--	--	--	--	--	--	--
11...	--	--	--	--	140	1	0	2	--	0	0	0
JUL												
09...	--	--	--	--	160	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	170	--	--	--	--	--	--	--
SEP												
24...	--	--	--	--	130	--	--	--	--	--	--	--

DATE	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)
OCT												
03...	1	0	--	<3	0	3	--	11	1	--	--	10
10...	--	--	--	--	--	10	6	4	--	200	--	30
NOV												
13...	--	--	--	--	--	--	--	--	--	--	--	10
DEC												
05...	--	--	--	--	--	--	--	--	--	--	--	30
FEB												
07...	--	--	--	--	--	--	--	--	--	--	--	60
MAR												
14...	3	0	0	<3	10	7	0	<10	4	--	--	27
APR												
09...	--	--	--	--	--	--	--	--	--	--	--	20
MAY												
09...	--	--	--	--	--	--	--	--	--	--	--	20
JUN												
04...	--	--	--	--	--	--	--	--	--	--	--	20
11...	--	1	1	0	--	14	6	8	--	260	240	20
JUL												
09...	--	--	--	--	--	--	--	--	--	--	--	30
AUG												
13...	--	--	--	--	--	--	--	36	--	--	--	50
SEP												
24...	--	--	--	--	--	--	--	--	--	--	--	40

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM SUS-PENDED RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
OCT												
03...	160	150	10	15	30	--	60	140	--	180	340	.1
10...	0	0	0	--	30	0	30	200	0	210	--	.0
NOV												
13...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
05...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
07...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
14...	140	120	24	0	30	0	41	120	100	23	170	.3
APR												
09...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
09...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
04...	--	--	--	--	--	--	--	--	--	--	--	--
11...	38	35	3	--	--	--	--	60	0	60	--	--
JUL												
09...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
24...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, SUS-PENDED RECOV. (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	MOLYB-DENUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)
OCT												
03...	.0	.1	.01	3	3	0	0	9	5	4	0	0
10...	.0	1.5	--	0	0	0	--	2	0	5	--	0
NOV												
13...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
05...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
07...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
14...	.0	.4	.00	2	0	<10	0	4	4	0	10	1
APR												
09...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
09...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
04...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	.0	--	--	--	--	--	7	7	0	--	--
JUL												
09...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
24...	--	--	--	--	--	--	--	--	--	--	--	--

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
OCT												
03...	0	0	0	--	--	--	2400	<6.0	10	--	4	5
10...	0	0	--	--	--	--	--	--	20	0	30	--
NOV												
13...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
05...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
07...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
14...	1	0	0	--	--	--	2100	<6.0	30	30	<3	20
APR												
09...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
09...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
04...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	0	--	0	0	0	--	--	30	20	10	--
JUL												
09...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
24...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT									
03...	1230	<40	<.4	33	.5	33	.5	<27	<.3
MAR									
14...	1045	<29	9.4	<10	9.0	<10	9.3	<20	6.4

06363900 CHEYENNE RIVER NEAR DULL CENTER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
OCT												
02...	1410	--	--	57	--	--	--	--	--	--	--	--
03...	1230	16.0	.20	21	.01	--	--	--	--	--	--	--
NOV												
13...	1315	3.5	.24	30	.02	--	--	--	--	--	--	--
DEC												
05...	0950	.0	.26	116	.08	--	--	--	--	--	--	--
FEB												
07...	1115	.5	.18	47	.02	--	--	--	--	--	--	--
MAR												
14...	1045	4.0	9.4	--	--	46	64	72	76	95	99	100
APR												
09...	1045	8.0	7.9	136	2.9	--	--	--	--	--	--	--
MAY												
09...	1135	26.0	3.4	41	.38	--	--	--	--	--	--	--
29...	0945	--	--	290	--	--	--	--	--	--	--	--
JUN												
04...	1430	30.0	--	201	--	--	--	--	--	--	--	--
JUL												
09...	0915	22.0	.14	42	.02	--	--	--	--	--	--	--
AUG												
13...	0915	17.0	.09	40	.01	--	--	--	--	--	--	--
SEP												
24...	1025	10.0	.17	15	.01	--	--	--	--	--	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
OCT											
02...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
NOV											
13...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	--	--	--	--	--	--	--	--	--	--	--
FEB											
07...	--	--	--	--	--	--	--	--	--	--	--
MAR											
14...	1	3	14	45	62	66	70	75	77	83	100
APR											
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
09...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
JUN											
04...	.2	.2	19	78	96	99	100	--	--	--	--
JUL											
09...	--	--	--	--	--	--	--	--	--	--	--
AUG											
13...	--	--	--	--	--	--	--	--	--	--	--
SEP											
24...	--	--	--	--	--	--	--	--	--	--	--

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	OCT 3,79		NOV 13,79		DEC 5,79		FEB 7,80		MAR 14,80		APR 9,80	
TIME	1230		1315		0950		1115		1045		1045	
TOTAL CELLS/ML	9200		1200		400		260		1700		1600	
DIVERSITY: DIVISION	0.5		0.8		1.3		1.5		1.1		0.4	
.CLASS	0.5		0.8		1.3		1.5		1.1		0.4	
..ORDER	0.5		0.8		1.4		1.9		1.7		0.4	
...FAMILY	1.1		1.0		1.6		2.4		2.0		1.8	
....GENUS	1.1		1.0		1.7		2.4		2.6		1.8	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...OOCYSTACEAE												
....ANKISTRODESMUS	*	0	--	-	--	-	--	-	69	4	--	-
....CHLORELLA	--	-	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	14	3	--	-	55	3	--	-
..TETRASPORALES												
...COCCOMYXACEAE												
....ELAKATOTHRIX	--	-	--	-	--	-	41#	16	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CARTERIA	--	-	14	1	14	3	--	-	--	-	--	-
....CHLAMYDOMONAS	--	-	--	-	27	7	14	5	28	2	100	7
....PLATYMONAS	*	0	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	--	-	--	-	14	5	14	1	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	14	5	--	-	--	-
...CYMBELLACEAE												
....CYMBELLA	--	-	--	-	--	-	--	-	14	1	45	3
....RHOPALODIA	--	-	--	-	--	-	--	-	28	2	--	-
...DIATOMACEAE												
....DIATOMA	--	-	--	-	--	-	--	-	--	-	30	2
...EUNOTIACEAE												
....EUNOTIA	--	-	--	-	--	-	--	-	--	-	15	1
...FRAGILARIACEAE												
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-	--	-
....SYNEDRA	*	0	69	6	27	7	82#	32	96	6	15	1
...GOMPHONEMATACEAE												
....GOMPHONEMA	--	-	--	-	--	-	--	-	--	-	15	1
...NAVICULACEAE												
....CALONEIS	--	-	--	-	--	-	--	-	14	1	--	-
....ENTOMONEIS	--	-	--	-	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	--	-	--	-	--	-
....MASTOGLOIA	--	-	--	-	--	-	--	-	14	1	15	1
....NAVICULA	97	1	14	1	14	3	--	-	69	4	190	12
....NEIDIUM	--	-	--	-	--	-	--	-	14	1	--	-
....PINNULARIA	--	-	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE												
....NITZSCHIA	810	9	140	11	14	3	14	5	41	2	1100#	66
...SURIRELLACEAE												
....SURIRELLA	--	-	--	-	--	-	--	-	--	-	89	6
.CHRYSOPHYCEAE												
..CHRYSOMONADALES												
...CHROMULINACEAE												
....CHRYSOCOCCUS	--	-	--	-	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	--	-	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE												
....CRYPTOMONAS	--	-	--	-	14	3	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	--	-	--	-	--	-	190	12	--	-
..HORMOGONALES												
...NOSTOCACEAE												
....ANABAENA	990	11	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE												
....LYNGBYA	--	-	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	1000#	81	270#	69	82#	32	810#	49	--	-
....PHORMIDIUM	--	-	--	-	--	-	--	-	190	12	--	-
....SCHIZOTHRIX	7300#	79	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	--	-	--	-	--	-	--	-	--	-	15	1
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

CHEYENNE RIVER BASIN

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	MAY 9,80		JUN 4,80		JUL 9,80		AUG 13,80		SEP 24,80	
TIME	1135		1430		0915		0915		1025	
TOTAL CELLS/ML	4200		1000		5000		1200		150	
DIVERSITY: DIVISION	1.3		0.8		0.7		0.5		0.0	
.CLASS	1.3		0.8		0.7		0.5		0.0	
..ORDER	2.0		0.9		0.7		0.8		0.0	
...FAMILY	2.2		1.1		0.8		1.3		1.5	
....GENUS	2.4		1.2		0.8		1.3		1.7	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	66	2	13	1	--	-	26	2	--	-
....CHLORELLA	--	-	13	1	--	-	--	-	--	-
....KIRCHNERIELLA	2200#	53	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	4200#	86	--	-	--	-
..TETRASPORALES										
...COCCOMYXACEAE										
....ELAKATOTHRIX	88	2	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CARTERIA	44	1	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	460	11	13	1	--	-	51	4	--	-
....PLATYMONAS	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	22	1	13	1	--	-	51	4	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	66	2	--	-	--	-	--	-	--	-
....RHOPALODIA	--	-	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	22	1	--	-	--	-	--	-	--	-
...EUNOTIACEAE										
....EUNOTIA	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	--	-	26#	17
....SYNEDRA	--	-	--	-	--	-	--	-	13	8
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	--	-	26	2	--	-
...NAVICULACEAE										
....CALONEIS	--	-	--	-	--	-	--	-	--	-
....ENTOMONEIS	22	1	--	-	--	-	--	-	--	-
....GYROSIGMA	22	1	--	-	--	-	--	-	--	-
....MASTOGLOIA	--	-	--	-	--	-	--	-	--	-
....NAVICULA	66	2	39	4	39	1	90	8	39#	25
....NEIDIUM	--	-	--	-	--	-	--	-	--	-
....PINNULARIA	--	-	--	-	*	0	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	720#	17	820#	80	77	2	930#	77	77#	50
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...CHROMULINACEAE										
....CHRYSOCOCCUS	66	2	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	88	2	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE										
....CRYPTOMONAS	22	1	13	1	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	51	1	13	1	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	100	10	--	-	--	-	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	530	11	--	-	--	-
....OSCILLATORIA	180	4	--	-	--	-	--	-	--	-
....PHORMIDIUM	--	-	--	-	--	-	--	-	--	-
....SCHIZOTHRIX	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	13	1	--	-
....TRACHELOMONAS	44	1	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

BENTHIC INVERTEBRATE ANALYSES

DATE	AUG 20,80
TIME	1105
TOTAL COUNT	2
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	1.0
...FAMILY	0.0
....GENUS	0.0
....GENUS-INSECTA	0.0

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..DIPTERA	
...CHIRONOMIDAE	1
..EPHEMEROPTERA	1

06375600 LITTLE THUNDER CREEK NEAR HAMPSHIRE, WY

LOCATION.--Lat 43°39'20", long 104°34'20", in SW¼SE¼ sec.33, T.43 N., R.67 W., Weston County, Hydrologic Unit 10120103, Thunder Basin National Grassland, on left bank 1.2 mi (1.9 km) downstream from county bridge, 2.7 mi (4.3 km) upstream from mouth, 12 mi (19 km) northwest of Hampshire, and 38 mi (61 km) southwest of Newcastle.

DRAINAGE AREA.--234 mi² (606 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,400 ft (1,341 m), from topographic map.

REMARKS.--Records poor. Numerous small stockwater reservoirs above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,030 ft³/s (85.8 m³/s) May 18, 1978, gage height, 9.02 ft (2.749 m), from rating curve extended above 180 ft³/s (5.10 m³/s) on basis of slope-area measurements at gage heights 7.67 ft (2.338 m) and 9.02 ft (2.749 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 508 ft³/s (14.4 m³/s) May 24, gage height, 5.80 ft (1.768 m), from rating curve as explained above; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.20	.17	.01	2.6	.00	.14	.29
2	.00	.00	.00	.00	.00	.25	.25	.00	11	.00	.04	.04
3	.00	.00	.00	.00	.00	.30	.40	.54	3.6	.00	.02	.02
4	.00	.00	.00	.00	.00	.21	.45	.22	2.2	.00	.00	.00
5	.00	.00	.00	.00	.00	.10	.40	.06	1.4	.00	.00	.00
6	.00	.00	.00	.00	.00	.15	.29	.77	1.1	.00	.00	.00
7	.00	.00	.00	.00	.00	.20	.17	.25	.66	.00	.00	.00
8	.00	.01	.00	.00	.00	.20	.09	.06	.55	.00	.00	.00
9	.00	.01	.01	.00	.00	.30	.07	.03	.34	.00	.00	.00
10	.00	.01	.02	.00	.00	.35	.06	.02	.20	.00	.00	.00
11	.00	.00	.00	.00	.00	.40	.08	.05	.09	.00	.00	.00
12	.00	.01	.00	.00	.00	.60	.07	.45	.05	.00	.00	.00
13	.00	.01	.00	.00	.00	.50	.06	3.0	.04	.00	.00	.00
14	.00	.01	.00	.00	.00	.50	.09	2.2	50	.00	.00	.00
15	.00	.01	.00	.00	.00	.50	.07	.84	11	.00	83	.00
16	.02	.02	.00	.00	.00	.45	.38	.46	.79	.00	107	.00
17	.02	.02	.00	.00	.00	.40	.30	.22	3.8	.00	12	.00
18	.01	.02	.00	.00	.00	.45	.12	.10	2.2	.00	3.9	.00
19	.00	.02	.00	.00	.02	.40	.07	.05	.93	.00	2.0	.00
20	.00	.03	.00	.00	.10	.34	.04	.04	.55	.00	1.3	.00
21	.00	.02	.00	.00	.15	.34	.04	.03	.25	.00	.79	.00
22	.00	.02	.00	.00	.20	.25	.03	.01	4.1	.00	.45	.00
23	.00	.02	.00	.00	.20	.20	.02	33	2.4	.00	.25	.00
24	.01	.03	.00	.00	.15	.17	.01	112	1.4	.00	.17	.00
25	.01	.03	.00	.00	.15	.14	.01	14	.86	2.3	.05	.00
26	.01	.02	.00	.00	.25	.14	.01	4.7	.40	37	.04	.00
27	.00	.01	.00	.00	.45	.11	.01	1.4	.09	10	.04	.00
28	.00	.00	.00	.00	.40	.14	.01	.64	.04	3.6	.02	.00
29	.01	.00	.00	.00	.30	.17	.01	.59	.02	2.2	.02	.00
30	.01	.00	.00	.00	---	.09	.01	.50	.00	.86	.01	.00
31	.00	---	.00	.00	---	.09	---	.39	---	.29	.04	---
TOTAL	.10	.33	.03	.00	2.37	8.64	3.79	176.63	102.66	56.25	211.28	.35
MEAN	.003	.011	.001	.000	.082	.28	.13	5.70	3.42	1.81	6.82	.012
MAX	.02	.03	.02	.00	.45	.60	.45	112	50	37	107	.29
MIN	.00	.00	.00	.00	.00	.09	.01	.00	.00	.00	.00	.00
AC-FT	.2	.7	.06	.00	4.7	17	7.5	350	204	112	419	.7

CAL YR 1979 TOTAL 606.20 MEAN 1.66 MAX 71 MIN .00 AC-FT 1200
WTR YR 1980 TOTAL 562.43 MEAN 1.54 MAX 112 MIN .00 AC-FT 1120

06375600 LITTLE THUNDER CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
MAR 12...	1025	.59	1620	--	.0	--	12.6	102	K5	80	430
APR 08...	0930	.08	2090	8.2	2.0	--	11.9	99	K1	K12	520
MAY 07...	0915	.28	2380	8.3	14.0	--	8.4	94	45	280	530
JUN 03...	1555	3.4	1345	8.2	20.5	--	--	--	K770	680	440
AUG 17...	1600	8.2	420	7.6	19.5	--	--	--	--	--	140
SEP 27...	1500	.00	2200	8.1	16.5	15	10.0	--	--	--	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
MAR 12...	220	88	51	220	5.1	14	--	--	--	680	11
APR 08...	230	100	66	320	6.1	13	350	0	280	860	10
MAY 07...	230	100	67	360	6.8	17	360	0	290	930	12
JUN 03...	300	83	56	120	2.5	14	170	0	140	580	6.1
AUG 17...	78	31	16	33	1.2	9.2	--	--	65	110	5.7
SEP 27...	--	--	--	--	--	--	--	--	--	--	--

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)
MAR 12...	.5	6.3	1220	--	1.66	1.94	.08	.08	.130	.16	.97
APR 08...	.6	2.6	1580	1550	2.11	.33	.01	.00	.080	.10	.59
MAY 07...	.6	2.8	1780	1670	2.27	1.26	.03	.06	.110	.13	1.1
JUN 03...	.4	5.2	994	949	1.29	8.71	.08	.06	.040	.05	.83
AUG 17...	.3	5.9	--	253	.34	5.60	--	.68	--	--	--
SEP 27...	--	--	--	--	--	--	--	--	--	--	--

06375600 LITTLE THUNDER CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	PHYTOPLANKTON, TOTAL (CELLS PER ML)
MAR 12...	1.1	1.2	5.2	.090	.28	.010	17	.5	.00	3	1300
APR 08...	.67	.68	3.0	.040	.12	.010	12	.2	--	1	6200
MAY 07...	1.2	1.2	5.4	.060	.18	.010	16	1.4	--	3	21000
JUN 03...	.87	.95	4.2	.100	.31	.010	14	1.8	--	4	1200
AUG 17...	--	--	--	.460	1.4	--	--	--	--	--	--
SEP 27...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BARIUM, RECOV. FM BOTTOM MATERIAL (UG/G AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)
MAR 12...	1025	30	0	0	0	4	300	300	50	120	0
APR 08...	0930	--	--	--	--	--	--	--	--	--	--
MAY 07...	0915	--	--	--	--	--	--	--	--	--	--
JUN 03...	1555	--	--	--	--	--	--	--	--	--	--

DATE	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BERYLLIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)
MAR 12...	0	<1	0	150	0	0	<1	1	0	0	0
APR 08...	--	--	--	110	--	--	--	--	--	--	--
MAY 07...	--	--	--	150	--	--	--	--	--	--	--
JUN 03...	--	--	--	210	--	--	--	--	--	--	--

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
MAR 12...	4	0	0	<3	10	6	0	<10	8	46	2
APR 08...	--	--	--	--	--	--	--	--	--	20	--
MAY 07...	--	--	--	--	--	--	--	--	--	30	--
JUN 03...	--	--	--	--	--	--	--	--	--	<10	--

06375600 LITTLE THUNDER CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
MAR 12...	0	16	0	20	0	27	280	20	260	120	.5
APR 08...	--	--	--	--	--	--	--	--	--	--	--
MAY 07...	--	--	--	--	--	--	--	--	--	--	--
JUN 03...	--	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)
MAR 12...	.0	.7	.02	0	0	<10	0	6	3	3	10
APR 08...	--	--	--	--	--	--	--	--	--	--	--
MAY 07...	--	--	--	--	--	--	--	--	--	--	--
JUN 03...	--	--	--	--	--	--	--	--	--	--	--

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
MAR 12...	1	1	0	1	900	<6.0	30	10	18	31
APR 08...	--	--	--	--	--	--	--	--	--	--
MAY 07...	--	--	--	--	--	--	--	--	--	--
JUN 03...	--	--	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
MAR 12...	1025	<20	2.6	15	2.6	16	2.6	<14	1.8

06375600 LITTLE THUNDER CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPERATURE, WATER (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM
MAR										
12...	1025	.0	.59	71	.11	--	--	--	8	14
APR										
08...	0930	2.0	.08	17	.00	--	--	--	--	--
MAY										
07...	0915	14.0	.28	40	.03	--	--	--	--	--
28...	0920	--	--	--	--	96	98	100	--	--
JUN										
03...	1555	20.5	3.4	324	3.0	--	--	--	2	2
JUL										
08...	--	--	--	2680	--	--	--	--	--	--
AUG										
15...	1950	--	--	3060	--	--	--	--	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
MAR									
12...	20	26	34	41	53	69	84	100	--
APR									
08...	--	--	--	--	--	--	--	--	--
MAY									
07...	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--
JUN									
03...	3	4	6	9	18	37	51	94	100
JUL									
08...	--	--	--	--	--	--	--	--	--
AUG									
15...	--	--	--	--	--	--	--	--	--

06375600 LITTLE THUNDER CREEK NEAR HAMPSHIRE, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	MAR 12,80		APR 8,80		MAY 7,80		JUN 3,80	
TIME	1025		0930		0915		1555	
TOTAL CELLS/ML	1300		6200		21000		1200	
DIVERSITY: DIVISION	1.5		1.4		1.4		1.6	
.CLASS	1.5		1.4		1.4		1.6	
..ORDER	1.6		1.8		1.5		2.0	
...FAMILY	1.8		1.8		1.7		2.6	
....GENUS	1.8		2.2		2.2		2.7	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	13	1
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	--	-	39	3
...OOCYSTACEAE								
....ANKISTRODESMUS	190	15	1100#	18	3500#	17	26	2
....DICTYOSPHAERIUM	--	-	800	13	3400#	16	--	-
....KIRCHNERIELLA	--	-	--	-	770	4	--	-
....OOCYSTIS	--	-	80	1	--	-	--	-
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	--	-	380	2	77	7
....TETRASTRUM	52	4	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	65	5	80	1	*	0	120	10
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	40	1	290	1	26	2
..PENNALES								
...ACHNANTHACEAE								
....COCCONEIS	--	-	--	-	190	1	--	-
...FRAGILARIACEAE								
....SYNEDRA	39	3	--	-	--	-	26	2
...GOMPHONEMATACEAE								
....COMPHONEMA	--	-	--	-	--	-	13	1
...NAVICULACEAE								
....CYROSICMA	--	-	--	-	190	1	--	-
....NAVICULA	26	2	--	-	190	1	64	5
...NITZSCHIACEAE								
....NITZSCHIA	--	-	--	-	*	0	360#	30
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...CHROMULINACEAE								
....CHRYSOCOCCUS	--	-	--	-	770	4	--	-
...OCHROMONADACEAE								
....KEPHYRIOPSIS	--	-	40	1	--	-	--	-
....OCHROMONAS	--	-	40	1	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	80	1	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	3200#	53	11000#	52	13	1
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	400	6	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	830#	64	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	26	2	--	-	--	-	400#	34
....TRACHELOMONAS	--	-	280	5	*	0	13	1
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	65	5	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
      * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06376300 BLACK THUNDER CREEK NEAR HAMPSHIRE, WY

LOCATION.--Lat 43°34'51", long 104°43'04", in NW¼NW¼ sec.31, T.42 N., R.65 W., Weston County, Hydrologic Unit 10120103, on right bank 20 ft (6.1 m) downstream from bridge on county road, 1.3 mi (2.1 km) west of Hampshire, and 4.0 mi (6.4 km) upstream from mouth.

DRAINAGE AREA.--535 mi^2 (1,386 km^2), approximately.

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,060 ft (1,237 m), from map prepared by Army Map Service, Corps of Engineers.

REMARKS.--Records poor. There are many small stock ponds above station. No diversion above station.

AVERAGE DISCHARGE.--8 years, 9.29 ft^3/s (0.263 m^3/s), 6,730 acre-ft/yr (8.30 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,050 ft^3/s (143 m^3/s) May 18, 1978, gage height, 14.13 ft (4.307 m), from floodmark; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft^3/s (7.080 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 24	1300	*668	18.9	10.32	3.146
June 1	1830	378	10.7	8.18	2.493
June 15	0630	608	17.2	10.04	3.060
Aug. 16	1700	532	15.1	9.29	2.832

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.30	.00	.00	109	1.2	1.6	.24
2	.00	.00	.00	.00	.00	.32	.00	.00	65	.79	1.3	.15
3	.00	.00	.00	.00	.00	.35	.00	.00	20	.43	.93	.05
4	.00	.00	.00	.00	.00	.27	.00	.00	7.3	.15	.38	.00
5	.00	.00	.00	.00	.00	.20	.00	.00	4.1	.01	.12	.00
6	.00	.00	.00	.00	.00	.12	.00	13	2.7	.00	.00	.00
7	.00	.00	.00	.00	.00	.12	.00	4.6	1.8	.00	.00	.00
8	.00	.00	.00	.00	.00	.07	.00	2.0	2.1	.00	.00	.00
9	.00	.00	.00	.00	.00	.07	.00	1.5	1.2	.00	.00	.00
10	.00	.00	.00	.00	.00	.04	.00	.50	.72	.00	.00	.00
11	.00	.00	.00	.00	.00	.02	.00	.20	.48	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.15	.24	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	3.2	.12	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	19	.05	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	6.4	194	.00	.82	.00
16	.00	.00	.00	.00	.00	.00	.00	3.5	8.7	.00	324	.00
17	.00	.00	.00	.00	.00	.00	.00	2.0	7.3	.00	97	.00
18	.00	.00	.00	.00	.00	.00	.00	1.5	7.3	.00	23	.00
19	.00	.00	.00	.00	.02	.00	.00	.50	11	.00	6.6	.00
20	.00	.00	.00	.00	.10	.00	.00	.20	4.6	.00	4.1	.00
21	.00	.00	.00	.00	.18	.00	.00	.15	2.0	.00	3.2	.00
22	.00	.00	.00	.00	.21	.00	.00	.10	1.0	.00	2.7	.00
23	.00	.00	.00	.00	.22	.00	.00	.05	.94	.00	3.8	.00
24	.00	.00	.00	.00	.21	.00	.00	311	2.4	.00	4.0	.00
25	.00	.00	.00	.00	.20	.00	.00	55	1.3	.00	2.7	.00
26	.00	.00	.00	.00	.25	.00	.00	26	1.2	3.3	1.6	.00
27	.00	.00	.00	.00	.55	.00	.00	10	1.7	20	.79	.00
28	.00	.00	.00	.00	.44	.00	.00	5.5	1.9	7.6	.54	.00
29	.00	.00	.00	.00	.37	.00	.00	3.4	2.1	4.6	.34	.00
30	.00	.00	.00	.00	---	.00	.00	1.6	1.7	2.9	.30	.00
31	.00	---	.00	.00	---	.00	---	1.3	---	2.6	.30	---
TOTAL	.00	.00	.00	.00	2.75	1.88	.00	472.35	463.95	43.58	480.12	.44
MEAN	.000	.000	.000	.000	.095	.061	.000	15.2	15.5	1.41	15.5	.015
MAX	.00	.00	.00	.00	.55	.35	.00	311	194	20	324	.24
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00
AC-FT	.00	.00	.00	.00	5.5	3.7	.00	937	920	86	952	.9

CAL YR 1979 TOTAL 2941.60 MEAN 8.06 MAX 644 MIN .00 AC-FT 5830
WTR YR 1980 TOTAL 1465.07 MEAN 4.00 MAX 324 MIN .00 AC-FT 2910

06376300 BLACK THUNDER CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to September 1980.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
MAY 07...	1145	5.0	1150	8.0	13.5	7.8	86	K2000	1200	240	77
28...	1245	4.2	500	--	17.0	7.8	93	--	--	150	--
JUN 04...	0940	--	670	8.1	15.0	--	--	4300	3000	160	80
AUG 17...	1430	74	300	7.6	18.5	--	--	--	--	140	110

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
MAY 07...	53	27	160	4.9	8.9	200	0	170	410	11	.6
28...	37	15	50	1.9	6.9	--	--	--	160	9.9	.3
JUN 04...	37	17	72	2.5	7.1	100	0	82	240	2.7	.4
AUG 17...	39	10	34	1.3	7.5	--	--	33	83	8.8	.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
MAY 07...	3.8	791	776	1.06	10.5	.47	.47	.200	.24	1.6	1.8
28...	6.1	343	--	.47	3.94	.51	.54	.580	.70	.82	1.4
JUN 04...	5.4	438	433	.59	--	.41	.40	.140	.17	1.9	2.0
AUG 17...	3.5	--	209	.28	41.8	--	.75	--	--	--	--

DATE	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	PHYTOPLANKTON, TOTAL (CELLS PER ML)
MAY 07...	2.3	10	.230	.71	.010	15	1.5	--	10	8400
28...	1.9	8.5	.210	.64	.020	9.4	2.7	.00	0	1700
JUN 04...	2.4	11	--	--	.020	13	5.4	--	4	860
AUG 17...	--	--	.740	2.3	--	--	--	--	--	--

06376300 BLACK THUNDER CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BARIUM, RECOV. FM BOTTOM MATERIAL (UG/G AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)
MAY												
07...	1145	0	2	1	1	14	100	60	40	220	0	<1
28...	1245	210	4	2	2	11	200	100	70	100	0	<3
JUN												
04...	0940	--	--	--	--	--	--	--	--	--	--	--

DATE	BERYLLIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)
MAY												
07...	1	90	0	<1	1	0	0	0	2	0	<3	10
28...	0	70	0	<3	1	30	30	0	3	0	<8	10
JUN												
04...	--	60	--	--	--	--	--	--	--	--	--	--

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)
MAY												
07...	13	<10	5	15	7	<10	10	20	8	12	200	200
28...	20	<25	10	130	30	<25	10	20	8	12	110	110
JUN												
04...	--	--	--	130	--	--	--	--	--	--	--	--

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)
MAY											
07...	2	540	.1	.1	.0	.02	1	<10	1	14	7
28...	4	300	.2	.0	.3	.04	0	<25	1	40	34
JUN											
04...	--	--	--	--	--	--	--	--	--	--	--

DATE	NICKEL, DISSOLVED (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
MAY											
07...	7	10	2	0	2	0	550	<6.0	70	<3	25
28...	6	10	2	1	1	0	350	<8.0	140	<8	25
JUN											
04...	--	--	--	--	--	--	--	--	--	--	--

06376300 BLACK THUNDER CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
MAY									
07...	1145	15	14	13	9.4	12	8.8	10	9.5
28...	1245	<5.3	46	8.3	32	8.0	31	<3.6	31

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM
MAY										
07...	1145	13.5	5.0	305	4.1	--	--	--	3	3
28...	1245	17.0	4.2	852	9.7	97	99	100	32	40
JUN										
03...	1300	--	--	--	--	92	96	100	5	6
04...	0940	15.0	--	1600	--	--	--	--	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
MAY									
07...	6	11	18	30	48	71	85	96	100
28...	52	55	57	63	74	84	91	93	100
JUN									
03...	8	11	16	23	37	67	87	100	--
04...	--	--	--	--	--	--	--	--	--

06376300 BLACK THUNDER CREEK NEAR HAMPSHIRE, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	MAY 7,80	MAY 28,80	JUN 4,80
TIME	1145	1245	0940
TOTAL CELLS/ML	8400	1700	860
DIVERSITY: DIVISION	1.7	1.5	1.5
.CLASS	1.7	1.5	1.5
..ORDER	2.1	1.5	1.9
...FAMILY	2.2	2.0	2.2
....GENUS	2.5	2.0	2.2

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...OOCYSTACEAE						
....ANKISTRODESMUS	1500#	18	220	13	170#	20
....DICTYOSPHAERIUM	820	10	--	-	--	-
...SCENEDESMACEAE						
....SCENEDESMUS	140	2	290#	17	--	-
..TETRASPORALES						
...COCCOMYXACEAE						
....ELAKATOTHRIX	140	2	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	--	-	170#	20
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..PENNALES						
...CYMBELLACEAE						
....AMPHORA	--	-	--	-	86	10
....CYMBELLA	--	-	72	4	--	-
...NITZSCHIACEAE						
....NITZSCHIA	2800#	34	290#	17	260#	30
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	2000#	24	--	-	--	-
..HORMOGONALES						
...OSCILLATORIACEAE						
....OSCILLATORIA	690	8	790#	48	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	140	2	--	-	--	-
....TRACHELOMONAS	140	2	--	-	170#	20

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06378300 LODGEPOLE CREEK NEAR HAMPSHIRE, WY

LOCATION.--Lat 43°33'40", long 104°33'40", in SE¼NE¼ sec.5, T.41 N., R.64 W., Weston County, Hydrologic Unit 10120103, on right bank 300 ft (91 m) downstream from bridge on county road, 3.4 mi (5.5 km) downstream from Wildcat Creek, 6.7 mi (10.8 km) east of Hampshire, 8.8 mi (14.2 km) upstream from mouth, and 27 mi (43 km) southwest of Newcastle.

DRAINAGE AREA.--354 mi² (917 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder and sharp-crested weir. Altitude of gage is 3,950 ft (1,200 m), from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. Numerous small stock ponds above station. Diversions for irrigation of about 300 acres (1.21 km²) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 500 ft³/s (14.2 m³/s) June 16, 1980, gage height, 5.78 ft (1.762 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 500 ft³/s (14.2 m³/s) June 16, gage height, 5.78 ft (1.762 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.20	.60	.13	.08	.00	.00	.00
2	.00	.00	.01	.00	.00	.30	.85	.13	.08	.00	.00	.00
3	.00	.00	.02	.00	.00	.30	1.0	.13	.07	.00	.00	.00
4	.00	.00	.03	.00	.00	.23	.72	.13	.05	.00	.00	.00
5	.00	.01	.04	.00	.00	.10	.72	.10	.04	.00	.00	.00
6	.00	.02	.03	.00	.00	.10	.49	.10	.03	.00	.00	.00
7	.00	.02	.01	.00	.00	.20	.49	.10	.04	.00	.00	.00
8	.00	.01	.02	.00	.00	.20	.40	.10	.03	.00	.00	.00
9	.00	.01	.05	.00	.00	.25	.40	.09	.02	.00	.00	.00
10	.00	.01	.03	.00	.00	.25	.40	.09	.02	.00	.00	.00
11	.00	.01	.00	.00	.00	.50	.49	.09	.00	.00	.00	.00
12	.00	.01	.00	.00	.00	.80	.49	.85	.00	.00	.00	.00
13	.00	.02	.00	.00	.00	.70	.40	2.0	.00	.00	.00	.00
14	.00	.04	.00	.01	.00	.70	.33	1.7	.30	.00	.00	.00
15	.00	.06	.00	.02	.00	.70	.21	1.4	2.0	.00	.00	.00
16	.00	.06	.00	.01	.00	.60	.27	1.4	57	.00	.00	.00
17	.00	.05	.01	.00	.00	.55	.21	1.4	1.7	.00	.00	.00
18	.00	.05	.02	.00	.00	.60	.21	1.0	6.9	.00	.00	.00
19	.00	.05	.01	.00	.05	.55	.21	.72	14	.00	.00	.00
20	.00	.06	.01	.00	.10	.50	.17	.40	9.0	.00	.00	.00
21	.00	.05	.01	.00	.12	.50	.17	.27	5.0	.00	.00	.00
22	.00	.06	.01	.00	.15	.45	.13	.13	3.6	.00	.00	.00
23	.00	.06	.01	.00	.15	.40	.10	.10	.72	.00	.00	.00
24	.00	.05	.01	.00	.10	.35	.10	.09	.10	.00	.00	.00
25	.00	.04	.01	.00	.10	.35	.13	.10	.08	.00	.00	.00
26	.00	.02	.01	.00	.25	.33	.13	.09	.06	.00	.00	.00
27	.00	.00	.00	.00	.40	.30	.13	.08	.05	.00	.00	.00
28	.00	.00	.00	.00	.40	.35	.13	.07	.01	.00	.00	.00
29	.00	.00	.00	.00	.30	.40	.13	.06	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.30	.13	.08	.00	.00	.00	.00
31	.00	---	.00	.00	---	.40	---	.08	---	.00	.00	---
TOTAL	.00	.77	.35	.04	2.12	12.46	10.34	13.21	100.98	.00	.00	.00
MEAN	.000	.026	.011	.001	.073	.40	.34	.43	3.37	.000	.000	.000
MAX	.00	.06	.05	.02	.40	.80	1.0	2.0	57	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.10	.10	.06	.00	.00	.00	.00
AC-FT	.00	1.5	.7	.08	4.2	25	21	26	200	.00	.00	.00

CAL YR 1979 TOTAL 220.26 MEAN .60 MAX 31 MIN .00 AC-FT 437
WTR YR 1980 TOTAL 140.27 MEAN .38 MAX 57 MIN .00 AC-FT 278

06378300 LODGEPOLE CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
NOV 14...	0845	.04	4330	8.9	1.0	--	13.4	108	520	110	200
DEC 04...	0925	.03	4960	8.4	.5	--	--	--	150	1600	270
MAR 13...	1000	.68	2230	8.3	.0	--	11.6	92	K3	270	110
APR 08...	1340	.33	2220	8.7	8.5	--	11.2	111	K3	K23	120
MAY 08...	1400	.10	3330	8.8	18.0	--	13.6	166	K1	170	140
JUN 03...	0900	.07	3490	9.1	16.0	--	--	--	K1	58	120
AUG 25...	1330	.00	5000	--	19.5	330	9.4	--	--	--	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
NOV 14...	0	28	32	1000	31	14	1230	70	1130	1300	33
DEC 04...	0	39	41	1200	32	14	1650	26	1400	1600	16
MAR 13...	0	22	14	480	22	5.7	--	--	--	630	13
APR 08...	0	23	15	500	20	4.8	660	26	580	590	12
MAY 08...	0	23	20	800	29	7.3	970	61	900	860	16
JUN 03...	0	16	20	820	32	5.8	930	88	920	1000	16
AUG 25...	--	--	--	--	--	--	--	--	--	--	--

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)
NOV 14...	.8	2.1	3190	3090	4.20	.33	.08	.01	.240	.29	1.6
DEC 04...	.8	4.4	3700	3760	5.11	.30	.02	.01	.230	.28	2.6
MAR 13...	.4	9.0	1520	1600	2.18	2.94	.02	.03	.000	.00	1.2
APR 08...	.4	3.2	1250	1500	2.04	1.34	.01	.01	.060	.07	1.3
MAY 08...	.6	2.8	2360	2270	3.09	.61	.01	.34	.040	.05	2.3
JUN 03...	.5	.6	2440	2430	3.30	.46	.02	.01	.060	.07	1.1
AUG 25...	--	--	--	--	--	--	--	--	--	--	--

06378300 LODGEPOLE CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	PHYTOPLANKTON, TOTAL (CELLS PER ML)
NOV											
14...	1.8	1.9	8.3	.140	.43	.020	27	1.0	--	--	31000
DEC											
04...	2.8	2.8	12	.140	.43	.060	41	.4	.00	3	5000
MAR											
13...	1.2	1.2	5.4	.110	.34	.030	20	.6	.00	2	1700
APR											
08...	1.4	1.4	6.2	.140	.43	.040	11	1.3	--	1	4000
MAY											
08...	2.3	2.3	10	.110	.34	.040	38	1.9	--	4	14000
JUN											
03...	1.2	1.2	5.4	.100	.31	.040	69	2.2	--	6	3400
AUG											
25...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BARIUM, RECOV. FM BOTTOM MATERIAL (UG/G AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)
NOV											
14...	0845	--	--	--	--	--	--	--	--	--	--
DEC											
04...	0925	--	--	--	--	--	--	--	--	--	--
MAR											
13...	1000	50	2	0	2	17	100	60	40	200	0
APR											
08...	1340	--	--	--	--	--	--	--	--	--	--
MAY											
08...	1400	--	--	--	--	--	--	--	--	--	--
JUN											
03...	0900	--	--	--	--	--	--	--	--	--	--

DATE	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BERYLLIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)
NOV											
14...	--	--	--	240	--	--	--	--	--	--	--
DEC											
04...	--	--	--	190	--	--	--	--	--	--	--
MAR											
13...	0	<3	0	110	0	0	<3	1	0	0	0
APR											
08...	--	--	--	110	--	--	--	--	--	--	--
MAY											
08...	--	--	--	140	--	--	--	--	--	--	--
JUN											
03...	--	--	--	150	--	--	--	--	--	--	--

06378300 LODGEPOLE CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
NOV 14...	--	--	--	--	--	--	--	--	--	40	--
DEC 04...	--	--	--	--	--	--	--	--	--	100	--
MAR 13...	10	0	0	<8	20	7	0	<25	19	280	6
APR 08...	--	--	--	--	--	--	--	--	--	150	--
MAY 08...	--	--	--	--	--	--	--	--	--	20	--
JUN 03...	--	--	--	--	--	--	--	--	--	140	--

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
NOV 14...	--	--	--	--	--	--	--	--	--	--	--
DEC 04...	--	--	--	--	--	--	--	--	--	--	--
MAR 13...	6	0	0	10	0	<10	100	40	58	410	.5
APR 08...	--	--	--	--	--	--	--	--	--	--	--
MAY 08...	--	--	--	--	--	--	--	--	--	--	--
JUN 03...	--	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)
NOV 14...	--	--	--	--	--	--	--	--	--	--	--
DEC 04...	--	--	--	--	--	--	--	--	--	--	--
MAR 13...	.0	.5	.02	2	0	<25	0	4	3	1	20
APR 08...	--	--	--	--	--	--	--	--	--	--	--
MAY 08...	--	--	--	--	--	--	--	--	--	--	--
JUN 03...	--	--	--	--	--	--	--	--	--	--	--

06378300 LODGEPOLE CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
NOV										
14...	--	--	--	--	--	--	--	--	--	--
DEC										
04...	--	--	--	--	--	--	--	--	--	--
MAR										
13...	0	0	0	0	530	<8.0	20	1	19	55
APR										
08...	--	--	--	--	--	--	--	--	--	--
MAY										
08...	--	--	--	--	--	--	--	--	--	--
JUN										
03...	--	--	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
MAR									
13...	1000	<26	2.6	<11	3.1	<12	3.1	<18	1.8

DATE	TIME	TEMPERATURE, WATER (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM
NOV										
14...	0845	1.0	.04	119	.01	--	--	--	--	--
DEC										
04...	0925	.5	.03	214	.02	--	--	--	--	--
MAR										
13...	1000	.0	.68	83	.15	86	96	99	99	100
APR										
08...	1340	8.5	.33	131	.12	--	--	--	--	--
MAY										
08...	1400	18.0	.10	151	.04	--	--	--	--	--
28...	1805	23.0	.07	170	--	--	--	--	--	--
JUN										
03...	0900	16.0	.07	134	.03	--	--	--	--	--
16...	0250	--	501	580	--	--	--	--	--	--

06378300 LODGEPOLE CREEK NEAR HAMPSHIRE, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	NOV 14,79	DEC 4,79	MAR 13,80	APR 8,80	MAY 8,80	JUN 3,80
TIME	0845	0925	1000	1340	1400	0900
TOTAL CELLS/ML	31000	5000	1700	4000	14000	3400
DIVERSITY: DIVISION	1.0	1.3	1.0	1.6	1.9	1.8
.CLASS	1.0	1.4	1.0	1.6	2.1	1.8
..ORDER	1.2	0.0	1.6	1.6	2.6	2.0
...FAMILY	1.2	0.0	1.8	2.0	2.9	2.4
....GENUS	1.6	0.0	2.3	2.7	3.6	2.9

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
...OOCYSTACEAE												
....ANKISTRODESMUS	18000#	59	720	14	780#	45	430	11	1100	8	460	14
....DICTYOSPHAERIUM	--	-	--	-	58	3	--	-	--	-	150	5
....KIRCHNERIELLA	2500	8	--	-	--	-	*	0	--	-	190	6
....OOCYSTIS	--	-	--	-	130	7	--	-	--	-	--	-
....SELENASTRUM	--	-	72	1	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-	84	1	--	-
...SCENEDESMACEAE												
....ACTINASTRUM	--	-	--	-	58	3	--	-	--	-	--	-
....CRUCIGENIA	--	-	--	-	--	-	--	-	2000	15	--	-
....SCENEDESMUS	--	-	--	-	--	-	35	1	920	7	270	8
....TETRASTRUM	--	-	--	-	--	-	170	4	670	5	--	-
..TETRASPORALES												
...COCCOMYXACEAE												
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	840	6	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	830	3	540	11	270#	16	*	0	250	2	--	-
..ZYGNEMATALES												
...DESMIDIACEAE												
....CLOSTERIUM	--	-	--	-	14	1	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	--	-	--	-	69	2	840	6	300	9
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	--	-	84	1	--	-
...DIATOMACEAE												
....DIATOMA	--	-	--	-	--	-	--	-	--	-	19	1
...NAVICULACEAE												
....NAVICULA	--	-	--	-	14	1	52	1	--	-	38	1
...NITZSCHIACEAE												
....DENTICULA	--	-	--	-	--	-	--	-	--	-	19	1
....NITZSCHIA	--	-	36	1	--	-	170	4	--	-	230	7
.CHRYSOPHYCEAE	--	-	36	1	--	-	--	-	--	-	--	-
..CHRYSOMONADALES												
...CHROMULINACEAE												
....CHRYSOCOCCUS	8000#	26	400	8	--	-	--	-	2200#	16	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....AGMENELLUM	1100	4	--	-	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	72	1	--	-	--	-	1900	14	38	1
..HORMOGONALES												
...NOSTOCACEAE												
....ANABAENA	--	-	--	-	--	-	120	3	--	-	--	-
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	370#	21	1800#	44	670	5	1400#	41
....SCHIZOTHRIX	--	-	--	-	--	-	590	15	--	-	--	-
....SPIRULINA	--	-	--	-	--	-	*	0	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	--	-	72	1	43	2	390	10	670	5	130	4
....LEPOCINCLIS	--	-	--	-	--	-	--	-	--	-	38	1
....PHACUS	--	-	--	-	--	-	--	-	920	7	38	1
....TRACHELOMONAS	--	-	3000#	61	--	-	160	4	670	5	57	2
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..PERIDINIALES												
...GLENODINIACEAE												
....GLENODINIUM	--	-	--	-	--	-	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06386000 LANCE CREEK NEAR RIVERVIEW, WY

LOCATION.--Lat 43°22', long 104°16', in sec.14, T.39 N., R.62 W., Niobrara County, Hydrologic Unit 10120104, on right bank 0.4 mi (0.6 km) north of former Spencer post office, 1.0 mi (1.6 km) upstream from mouth, 6.0 mi (9.7 km) southwest of Riverview, and 34 mi (55 km) south of Newcastle.

DRAINAGE AREA.--2,070 mi^2 (5,360 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1948 to September 1954, August 1956 to current year. Prior to October 1976, published as "at Spencer."

REVISED RECORDS.--WSP 1209: 1948(P), 1950.

GAGE.--Water-stage recorder. Altitude of gage is 3,750 ft (1,143 m), from map prepared by Army Map Service, Corps of Engineers. Prior to Aug. 14, 1948, nonrecording gage at same site and datum.

REMARKS.--Records poor. There are many small reservoirs above station used for storage of stock and irrigation water, total capacity, about 12,800 acre-ft (15.8 hm^3). Diversions for irrigation of about 3,500 acres (14.2 km^2) above station.

AVERAGE DISCHARGE.--30 years, 26.0 ft^3/s (0.736 m^3/s), 18,840 acre-ft/yr (23.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,410 ft^3/s (210 m^3/s) May 24, 1971, gage height, 9.67 ft (2.947 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft^3/s (21.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 20	2300	1,200	34.0	a5.57	1.698
Aug. 17	0300	*2,250	63.7	6.32	1.926

a-Backwater from ice.

Minimum daily discharge, 0.03 ft^3/s (0.001 m^3/s) July 22-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	5.1	3.2	3.5	2.8	54	22	.86	4.4	.27	1.3	8.2
2	1.7	5.4	3.4	3.3	3.1	49	22	.63	3.8	.27	1.2	7.3
3	1.5	4.4	3.9	3.2	3.3	46	22	.63	3.3	.20	1.1	7.7
4	2.3	4.7	4.5	3.2	3.3	35	24	.50	2.3	.14	.86	7.3
5	1.5	4.1	5.6	3.3	3.3	29	22	.36	1.7	.14	.75	5.1
6	1.2	3.8	6.0	2.9	3.5	30	24	.50	2.3	.10	.63	3.8
7	1.2	4.1	5.5	2.5	3.3	32	23	.50	2.3	.10	.50	2.8
8	1.1	4.7	4.8	2.3	2.9	35	18	.50	1.8	.08	.75	1.9
9	1.1	5.1	5.2	2.4	2.8	38	16	.36	1.3	.08	1.1	1.3
10	1.1	4.7	4.8	2.6	2.9	42	20	.50	6.4	.08	1.1	1.1
11	1.1	4.7	4.1	2.7	3.0	45	20	.63	5.1	.06	1.1	.98
12	1.1	4.4	3.9	2.9	3.1	41	19	.75	6.8	.06	.98	.98
13	1.1	4.4	4.2	3.1	2.9	38	19	.36	3.5	.06	1.2	.75
14	1.1	4.4	4.4	3.3	2.8	36	18	.27	5.5	.06	1.2	.75
15	1.2	4.4	4.2	3.5	2.6	35	18	5.6	5.1	.05	2.3	.75
16	1.3	4.1	4.2	3.5	2.8	34	17	6.5	3.3	.05	1110	.87
17	1.9	4.1	4.4	3.4	3.0	31	15	6.5	3.5	.05	994	.75
18	1.9	5.7	4.8	3.2	3.3	27	12	6.1	3.0	.05	162	.63
19	2.1	5.1	5.2	2.9	3.6	25	3.8	5.7	3.3	.04	67	.63
20	2.1	5.0	5.6	2.8	362	25	.20	5.7	2.8	.04	43	.63
21	2.3	4.1	5.2	2.9	955	24	.20	5.7	2.5	.04	33	.63
22	2.3	3.3	5.2	2.9	917	23	.36	5.7	2.8	.03	25	.50
23	2.3	3.0	4.7	3.0	625	22	.36	5.7	1.5	.03	19	.50
24	2.3	3.2	4.5	3.2	380	21	.50	5.1	1.1	.03	18	.50
25	2.3	3.4	4.6	2.8	240	21	.50	4.7	.98	.56	14	.50
26	2.3	3.0	4.2	2.5	190	22	.63	4.1	.75	66	11	.36
27	3.8	2.8	3.8	2.3	160	22	.63	3.8	.75	187	9.6	.36
28	5.1	2.7	3.3	2.2	96	22	.63	3.8	.63	20	8.6	.38
29	4.4	2.8	3.4	2.2	74	22	.63	1.2	.36	3.5	6.5	.40
30	6.1	3.0	3.5	2.3	---	22	.75	3.0	.27	3.0	13	.40
31	5.1	---	3.7	2.5	---	20	---	3.5	---	1.9	5.1	---
TOTAL	67.4	123.7	138.0	89.3	4057.3	968	360.19	89.75	83.14	284.07	2554.87	58.75
MEAN	2.17	4.12	4.45	2.88	140	31.2	12.0	2.90	2.77	9.16	82.4	1.96
MAX	6.1	5.7	6.0	3.5	955	54	24	6.5	6.8	187	1110	8.2
MIN	1.1	2.7	3.2	2.2	2.6	20	.20	.27	.27	.03	.50	.36
AC-FT	134	245	274	177	8050	1920	714	178	165	563	5070	117

CAL YR 1979 TOTAL 11700.71 MEAN 32.1 MAX 2170 MIN .00 AC-FT 23210
WTR YR 1980 TOTAL 8874.47 MEAN 24.2 MAX 1110 MIN .03 AC-FT 17600

06386000 LANCE CREEK NEAR RIVERVIEW, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-54, 1957-59, 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 10...	1500	1.2	3800	8.3	17.0	9.3	3.6	930	600	220	92
NOV 06...	1230	3.2	3600	8.0	5.0	12.0	2.3	840	500	200	83
DEC 04...	0900	4.5	4000	7.7	.5	13.0	1.5	860	470	200	87
JAN 08...	0830	2.3	4400	7.5	.5	10.8	1.1	960	540	220	100
FEB 19...	1145	3.6	4600	7.9	.5	11.2	.8	840	480	210	77
MAR 17...	1450	33	2320	--	7.5	10.4	--	540	280	140	46
APR 21...	1620	.24	2890	--	19.0	6.0	.7	760	490	190	69
MAY 19...	1400	6.2	3220	--	21.0	8.5	1.6	800	560	200	73
JUN 17...	1330	3.2	3400	--	28.5	9.2	1.0	880	560	210	87
JUL 23...	1420	.03	4000	8.1	35.0	5.9	1.3	950	660	230	91
AUG 28...	1330	8.6	2230	8.2	25.0	7.2	1.6	540	290	140	47
SEP 22...	1435	.44	3730	7.8	19.0	9.2	.7	900	580	220	85

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT 10...	550	7.9	13	330	1600	96	.5	16	2790	3.79	9.04
NOV 06...	500	7.5	13	340	1400	120	.6	13	2530	3.44	21.9
DEC 04...	600	8.9	11	390	1600	130	.6	16	2880	3.92	35.0
JAN 08...	660	9.3	16	420	1700	170	.7	18	3140	4.27	19.5
FEB 19...	500	7.5	13	360	1300	140	.7	20	2480	3.37	24.1
MAR 17...	310	5.8	15	260	810	120	.8	18	1620	2.20	144
APR 21...	480	7.6	17	270	1300	140	.8	13	2370	3.22	1.54
MAY 19...	440	6.8	15	240	1300	120	.5	13	2310	3.14	38.7
JUN 17...	530	7.8	16	320	1500	130	.5	16	2680	3.64	23.2
JUL 23...	620	8.8	17	290	1800	130	.6	12	3080	4.19	.25
AUG 28...	300	5.6	11	250	830	70	.6	9.3	1560	2.12	36.2
SEP 22...	570	8.3	8.2	320	1700	100	.5	8.8	2890	3.93	3.43

06386000 LANCE CREEK NEAR RIVERVIEW, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
OCT 10...	.06	.070	.08	.63	.70	.76	3.4	.000	.00	--	--
NOV 06...	.03	.050	.06	.55	.60	.63	2.8	.010	.03	--	--
DEC 04...	.04	.100	.12	.69	.79	.83	3.7	.000	.00	--	--
JAN 08...	.35	.100	.12	.64	.74	1.1	4.8	.010	.03	--	--
FEB 19...	.08	.150	.18	.47	.62	.70	3.1	.010	.03	--	2
MAR 17...	.08	.100	.12	.62	.72	.80	3.5	.200	.61	--	2
APR 21...	.00	.040	.05	.73	.77	.77	3.4	.020	.06	.00	0
MAY 19...	.01	.010	.01	.72	.73	.74	3.3	.400	1.2	--	2
JUN 17...	.02	.010	.01	1.1	1.1	1.1	5.0	.010	.03	.00	3
JUL 23...	.00	.000	.00	.86	.86	.86	3.8	.030	.09	--	1
AUG 28...	.28	.020	.02	1.1	1.1	1.4	6.1	.040	.12	--	2
SEP 22...	.00	.040	.05	.58	.62	.62	2.7	.010	.03	--	5

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT 10...	1500	290	290	0	1	1	0	0	0	0	190	6
NOV 06...	1230	--	--	--	--	--	--	--	--	--	190	--
DEC 04...	0900	--	--	--	--	--	--	--	--	--	190	--
JAN 08...	0830	300	--	--	--	--	--	0	--	--	240	1
FEB 19...	1145	--	--	--	--	--	--	--	--	--	220	--
MAR 17...	1450	--	--	--	--	--	--	--	--	--	250	--
APR 21...	1620	20	0	30	1	0	1	0	0	0	270	0
MAY 19...	1400	--	--	--	--	--	--	--	--	--	230	--
JUN 17...	1330	--	--	--	--	--	--	--	--	--	230	--
JUL 23...	1420	80	70	10	2	0	2	0	0	0	220	0
AUG 28...	1330	--	--	--	--	--	--	--	--	--	180	--
SEP 22...	1435	--	--	--	--	--	--	--	--	--	200	--

06386000 LANCE CREEK NEAR RIVERVIEW, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
OCT 10...	2	4	10	0	10	3	1	2	360	--	20	1
NOV 06...	--	--	--	--	--	--	--	--	--	--	60	--
DEC 04...	--	--	--	--	--	--	--	--	--	--	150	--
JAN 08...	--	--	10	--	--	0	--	--	180	140	40	5
FEB 19...	--	--	--	--	--	--	--	--	--	--	50	--
MAR 17...	--	--	--	--	--	--	--	--	--	--	50	--
APR 21...	0	0	0	0	0	11	9	2	90	30	60	2
MAY 19...	--	--	--	--	--	--	--	--	--	--	60	--
JUN 17...	--	--	--	--	--	--	--	--	--	--	40	--
JUL 23...	0	0	10	0	10	4	0	6	200	160	40	2
AUG 28...	--	--	--	--	--	--	--	--	--	--	50	--
SEP 22...	--	--	--	--	--	--	--	--	--	--	40	--

DATE	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM SUS-PENDED RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)
OCT 10...	1	0	70	10	60	450	20	430	.0	.0	.0	3
NOV 06...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 04...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 08...	--	--	100	--	--	730	--	--	.1	--	--	3
FEB 19...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 17...	--	--	--	--	--	--	--	--	--	--	--	--
APR 21...	2	0	110	0	120	250	90	160	.0	.0	.0	3
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 17...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 23...	2	0	90	0	90	180	30	150	.0	.0	.0	3
AUG 28...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 22...	--	--	--	--	--	--	--	--	--	--	--	--

06386000 LANCE CREEK NEAR RIVERVIEW, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 10...	3	0	0	0	4	0	0	1	--	10	0	20
NOV 06...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 04...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 08...	--	--	4	--	--	0	--	--	--	--	--	--
FEB 19...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 17...	--	--	--	--	--	--	--	--	--	--	--	--
APR 21...	0	3	4	0	4	1	1	0	1.0	40	0	40
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 17...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 23...	0	3	6	1	5	0	0	0	2.0	10	0	80
AUG 28...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 22...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT 10...	1500	<52	1.0	19	2.6	20	2.6	.10	32	<35	.7
MAR 17...	1450	33	4.5	15	3.3	16	3.4	.24	22	22	3.1

DATE	TIME	TEMPERATURE, WATER (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	NUMBER OF SAMPLING POINTS
OCT 05...	1020	12.0	1.5	80	.32	--	--	--	--	--
NOV 08...	1110	3.5	3.4	40	.37	--	--	--	--	4
DEC 12...	1320	.0	3.9	106	1.1	--	--	--	--	--
JAN 04...	1115	.0	3.2	29	.25	--	--	--	--	--
FEB 19...	1145	.5	3.6	97	.94	--	--	--	--	--
22...	1240	.5	1000	4860	13100	--	--	--	--	--
MAR 17...	1450	7.5	33	351	31	--	--	--	--	--
APR 21...	1620	19.0	.24	32	.02	--	--	--	--	--
MAY 19...	1400	21.0	6.2	119	2.0	--	--	--	--	--
JUN 17...	1330	28.5	3.2	72	.62	--	--	--	--	--
JUL 23...	1420	35.0	.03	35	.00	--	--	--	--	--
AUG 16...	2015	18.5	1780	14400	69200	81	96	99	100	--
17...	0920	--	757	8890	18200	81	96	99	100	--
28...	1330	25.0	8.6	147	3.4	--	--	--	--	--
SEP 22...	1435	19.0	.44	64	.08	--	--	--	--	--

06386000 LANCE CREEK NEAR RIVERVIEW, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
OCT										
05...	--	--	--	--	--	--	--	--	--	--
NOV										
08...	1	1	5	23	48	70	83	88	93	100
DEC										
12...	--	--	--	--	--	--	--	--	--	--
JAN										
04...	--	--	--	--	--	--	--	--	--	--
FEB										
19...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
MAR										
17...	--	--	--	--	--	--	--	--	--	--
APR										
21...	--	--	--	--	--	--	--	--	--	--
MAY										
19...	--	--	--	--	--	--	--	--	--	--
JUN										
17...	1	2	9	32	50	65	82	92	96	100
JUL										
23...	--	--	--	--	--	--	--	--	--	--
AUG										
16...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
SEP										
22...	--	--	--	--	--	--	--	--	--	--

06386400 CHEYENNE RIVER AT RIVERVIEW, WY

LOCATION.--Lat 43°25'41", long 104°11'45", in NW¼NE¼SW¼ sec.21, T.40 N., R.61 W., Niobrara County, Hydrologic Unit 10120106, at bridge on U.S. Highway 85, 0.5 mi (0.8 km) north of Riverview, 0.9 mi (1.4 km) upstream from Bobcat Creek, 4.7 mi (7.6 km) upstream from former gaging station, and 30 mi (48 km) south of Newcastle.

DRAINAGE AREA.--5,160 mi^2 (13,360 km^2), approximately.

PERIOD OF RECORD.--Water years 1951-54, 1969-70, 1972 to current year.

REMARKS.--No flow observed July 23. Published as South Fork Cheyenne River near Spencer prior to October 1951, as Cheyenne River near Spencer 1952-76, and as Cheyenne River near Riverview 1977-79.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT 10...	1610	E1.5	3800	8.5	17.5	80	8.8	K12	990	740	230	100
NOV 06...	1440	6.9	3700	8.1	6.0	10	11.0	K4	900	610	210	91
DEC 04...	1200	3.1	4500	7.7	.5	3	11.5	K13	940	570	210	100
JAN 08...	1015	E2.0	5000	7.6	.0	5	11.4	K5	1100	710	270	110
FEB 19...	1730	2.8	4600	7.9	.0	10	9.2	11	930	580	220	92
MAR 17...	1615	44	2430	--	8.5	--	10.2	K1	620	370	160	53
APR 22...	0730	6.4	3240	--	11.5	6	8.6	150	790	550	180	83
MAY 19...	1515	17	3280	--	23.0	8	7.7	57	740	480	170	76
JUN 17...	1500	156	5790	--	24.5	1800	6.5	--	110	32	29	10
AUG 28...	0945	10	2320	8.3	18.0	40	7.6	60	550	310	140	49
SEP 22...	1545	.34	3770	8.0	19.5	--	9.2	K1	890	640	210	89

E-Estimate.
K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 10...	550	7.6	14	250	1700	86	.6	12	2840	3.86	11.5	.13
NOV 06...	550	8.0	12	290	1700	96	.5	11	2850	3.88	53.1	.03
DEC 04...	660	9.4	12	370	1900	120	.5	13	3240	4.41	27.1	.01
JAN 08...	740	9.6	14	420	1900	150	.7	15	3450	4.69	18.6	.70
FEB 19...	570	8.1	12	350	1700	120	.6	17	2940	4.00	22.2	.26
MAR 17...	330	5.8	15	250	850	110	.7	15	1680	2.28	200	.08
APR 22...	460	7.1	13	240	1400	79	.7	11	2370	3.22	41.0	.00
MAY 19...	440	7.1	14	260	1300	67	.6	10	2230	3.03	102	.01
JUN 17...	64	2.6	5.3	82	160	8.5	.5	5.5	333	.45	140	.34
AUG 28...	300	5.6	10	240	870	57	.7	8.8	1580	2.15	43.9	.39
SEP 22...	580	8.5	8.0	250	1800	84	.6	6.9	2930	3.98	2.69	.00

06386400 CHEYENNE RIVER AT RIVERVIEW, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
OCT 10...	.150	.18	.95	1.1	1.2	5.4	.060	.18	8.3	.8	--	--
NOV 06...	.110	.13	.62	.73	.76	3.4	.010	.03	--	--	--	--
DEC 04...	.140	.17	.57	.71	.72	3.2	.000	.00	--	--	--	--
JAN 08...	.150	.18	.74	.89	1.6	7.0	.010	.03	--	--	--	--
FEB 19...	.180	.22	1.2	1.4	1.7	7.3	.020	.06	--	--	--	1
MAR 17...	.120	.15	.98	1.1	1.2	5.2	.240	.74	7.8	1.0	--	2
APR 22...	.000	.00	1.2	1.2	1.2	5.3	.030	.09	--	--	.00	0
MAY 19...	.000	.00	.69	.69	.70	3.1	.160	.49	--	--	--	0
JUN 17...	.840	1.0	6.8	7.6	7.9	35	1.700	5.2	--	--	.00	9
AUG 28...	.020	.02	.71	.73	1.1	5.0	.060	.18	--	--	--	2
SEP 22...	.040	.05	.69	.73	.73	3.2	.020	.06	--	--	--	1

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT 10...	1610	1900	1900	0	1	1	0	0	0	0	220	3
NOV 06...	1440	--	--	--	--	--	--	--	--	--	180	--
DEC 04...	1200	--	--	--	--	--	--	--	--	--	210	--
JAN 08...	1015	--	--	--	--	--	--	--	--	--	240	--
FEB 19...	1730	--	--	--	--	--	--	--	--	--	220	--
MAR 17...	1615	1900	1900	0	2	0	2	0	0	0	240	0
APR 22...	0730	--	--	--	--	--	--	--	--	--	200	--
MAY 19...	1515	--	--	--	--	--	--	--	--	--	190	--
JUN 17...	1500	--	--	--	--	--	--	--	--	--	130	--
AUG 28...	0945	--	--	--	--	--	--	--	--	--	180	--
SEP 22...	1545	--	--	--	--	--	--	--	--	--	270	--

06386400 CHEYENNE RIVER AT RIVERVIEW, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
OCT												
10...	1	2	10	0	10	3	2	1	3200	--	40	5
NOV												
06...	--	--	--	--	--	--	--	--	--	--	80	--
DEC												
04...	--	--	--	--	--	--	--	--	--	--	180	--
JAN												
08...	--	--	--	--	--	--	--	--	--	--	40	--
FEB												
19...	--	--	--	--	--	--	--	--	--	--	40	--
MAR												
17...	0	0	10	10	0	8	4	4	4600	4500	60	4
APR												
22...	--	--	--	--	--	--	--	--	--	--	40	--
MAY												
19...	--	--	--	--	--	--	--	--	--	--	30	--
JUN												
17...	--	--	--	--	--	--	--	--	--	--	1000	--
AUG												
28...	--	--	--	--	--	--	--	--	--	--	30	--
SEP												
22...	--	--	--	--	--	--	--	--	--	--	30	--

DATE	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM SUS-PENDED RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)
OCT												
10...	5	0	80	10	70	290	90	200	.1	.1	.0	0
NOV												
06...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
04...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
08...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
19...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
17...	4	0	140	10	130	200	150	50	.0	.0	.0	0
APR												
22...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
17...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
28...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
22...	--	--	--	--	--	--	--	--	--	--	--	--

06386400 CHEYENNE RIVER AT RIVERVIEW, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	MOLYB- DENUM, SUS- PENDED RECOV. (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, SUS- PENDED RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, SUS- PENDED TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, SUS- PENDED RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 10...	0	1	4	0	4	0	0	0	--	20	10	10
NOV 06...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 04...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 08...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 19...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 17...	0	4	7	5	2	1	1	0	1.0	80	70	10
APR 22...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 17...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 28...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 22...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT 10...	1610	<53	17	<18	8.9	<18	8.5	.14	26	<36	12
MAR 17...	1615	<30	15	14	9.2	15	9.5	.19	24	<20	10

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
MAY 19...	1515	--	0	--	.0	.00	0	.00	.0
JUN 17...	1500	.00	0	.00	.0	.00	0	.00	.0
AUG 28...	0945	.00	0	.00	.0	.05	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA- TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA- TERIAL (UG/KG)
MAY 19...	.00	.0	.16	.0
JUN 17...	.00	.0	.00	.0
AUG 28...	.00	.0	.03	.0

06392900 BEAVER CREEK AT MALLO CAMP, NEAR FOUR CORNERS, WY

LOCATION.--Lat 44°05'04", long 104°03'41", in NE¼NE¼ sec.4, T.47 N., R.60 W., Weston County, Hydrologic Unit 10120107, between Forest Service Road 811 and right bank in Mallo Campgrounds, 300 ft (91 m) upstream from mouth, 800 ft (244 m) upstream from dam on Stockade Beaver Creek, and 3.8 mi (6.1 km) east of Four Corners.

DRAINAGE AREA.--10.3 mi² (26.7 km²).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,030 ft (1,840 m), from topographic map.

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--6 years, 1.90 ft³/s (0.054 m³/s), 1,380 acre-ft/yr (1.70 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21 ft³/s (0.59 m³/s) Apr. 26, 1975, gage height, 5.40 ft (1.646 m); minimum daily, 0.23 ft³/s (0.007 m³/s) Oct. 14, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5.7 ft³/s (0.16 m³/s) Apr. 22, gage height, 4.66 ft (1.420 m), no peak above base of 10 ft³/s (0.28 m³/s); minimum discharge observed, 1.1 ft³/s (0.03 m³/s) Jan. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	1.9	1.9	2.0	1.9	2.2	2.7	2.8	3.8	2.4	2.5	2.3
2	2.5	1.8	2.1	2.1	2.0	2.2	2.7	2.6	3.8	2.6	2.5	2.3
3	2.5	1.8	2.3	2.1	2.0	2.3	2.7	2.6	4.1	2.8	2.5	2.4
4	2.4	1.8	2.3	2.2	2.1	2.2	2.7	2.6	4.3	2.6	2.5	2.4
5	2.4	1.8	2.3	2.2	2.3	2.1	2.7	2.6	4.2	2.5	2.5	2.4
6	2.4	1.7	2.3	2.1	2.3	2.2	2.6	2.6	3.9	2.4	2.5	2.5
7	2.4	1.7	2.3	2.0	2.3	2.1	2.6	2.6	4.0	2.2	2.5	2.3
8	2.4	1.7	2.3	1.8	2.3	2.1	2.5	2.6	4.1	2.0	2.5	2.3
9	2.5	1.7	2.3	1.7	2.3	2.0	2.5	2.7	3.9	2.0	2.5	2.2
10	2.5	1.7	2.3	1.8	2.3	2.0	2.6	2.9	4.0	1.6	2.7	2.0
11	2.5	1.7	1.9	2.0	2.5	2.2	2.5	2.8	3.8	2.4	2.6	2.1
12	2.4	1.9	2.0	2.0	2.5	2.3	2.5	2.5	3.9	3.5	2.5	2.1
13	2.3	1.8	2.3	2.0	2.5	2.4	2.6	2.6	3.7	3.7	2.4	2.1
14	2.3	1.8	2.5	2.0	2.5	2.4	2.7	2.5	3.7	3.2	2.4	2.2
15	2.2	1.6	2.3	1.9	2.5	2.5	2.7	2.8	4.4	3.0	2.4	2.2
16	2.2	1.6	1.6	1.8	2.3	2.5	2.8	2.8	3.7	3.3	3.0	2.2
17	2.2	1.6	2.5	1.8	2.4	2.5	2.8	2.9	3.2	3.5	2.7	2.2
18	2.2	1.6	2.5	1.7	2.5	2.6	2.9	2.9	2.9	3.4	2.6	2.2
19	2.2	1.6	2.4	1.7	2.5	2.6	3.0	3.0	3.1	3.0	2.4	2.2
20	2.2	1.5	2.4	1.7	2.4	2.6	3.1	3.0	3.5	1.7	2.4	2.1
21	2.2	1.5	2.5	1.8	2.3	2.5	3.1	3.0	4.2	2.3	2.3	2.0
22	2.2	1.4	2.5	1.8	2.3	2.2	3.4	2.9	3.4	2.3	2.3	2.0
23	2.2	1.3	2.4	1.8	2.3	2.3	3.0	3.3	3.9	2.3	2.3	2.0
24	2.0	1.3	2.3	1.6	2.3	2.3	2.9	3.3	5.3	2.4	2.3	1.9
25	2.0	1.4	2.3	1.5	2.7	2.3	2.9	3.5	5.4	2.5	2.3	1.9
26	2.0	1.4	2.2	1.3	2.4	2.3	2.9	3.5	5.6	2.5	2.3	2.2
27	2.0	1.5	2.1	1.2	2.3	2.4	2.9	3.5	5.2	2.5	2.3	2.2
28	2.0	1.2	2.1	1.1	2.3	2.5	2.9	3.5	4.8	2.5	2.3	2.2
29	2.0	1.3	2.0	1.2	2.3	2.5	2.9	3.9	4.3	2.5	2.3	2.3
30	1.9	1.6	1.9	1.3	---	2.6	2.9	3.7	3.4	2.4	2.4	2.3
31	1.9	---	1.9	1.6	---	2.6	---	3.6	---	2.5	2.3	---
TOTAL	69.6	48.2	69.0	54.8	67.6	72.5	83.7	92.1	121.5	80.5	76.0	65.7
MEAN	2.25	1.61	2.23	1.77	2.33	2.34	2.79	2.97	4.05	2.60	2.45	2.19
MAX	2.5	1.9	2.5	2.2	2.7	2.6	3.4	3.9	5.6	3.7	3.0	2.5
MIN	1.9	1.2	1.6	1.1	1.9	2.0	2.5	2.5	2.9	1.6	2.3	1.9
AC-FT	138	96	137	109	134	144	166	183	241	160	151	130

CAL YR 1979 TOTAL 941.6 MEAN 2.58 MAX 4.2 MIN 1.2 AC-FT 1870
WTR YR 1980 TOTAL 901.2 MEAN 2.46 MAX 5.6 MIN 1.1 AC-FT 1790

06392950 STOCKADE BEAVER CREEK NEAR NEWCASTLE, WY

LOCATION.--Lat 43°51'30", long 104°06'23", in SW¼SE¼ sec.19, T.45 N., R.60 W., Weston County, Hydrologic Unit 10120107, on left bank at downstream side of bridge on county highway, 0.6 mi (1.0 km) upstream from South Draw, 2.5 mi (4.0 km) upstream from LAK Reservoir Dam, and 4.7 mi (7.6 km) east of Newcastle.

DRAINAGE AREA.--107 mi^2 (277 km^2).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,455 ft (1,358 m), from topographic map.

REMARKS.--Records good. A few small diversions above station for irrigation.

AVERAGE DISCHARGE.--6 years, 12.5 ft^3/s (0.354 m^3/s), 9,060 acre-ft/yr (11.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 107 ft^3/s (3.03 m^3/s) June 16, 1977, gage height, 7.54 ft (2.298 m); maximum gage height, 7.91 ft (2.411 m) Jan. 12, 1975 (backwater from ice); minimum daily discharge, 6.2 ft^3/s (0.18 m^3/s) May 27, 28, 31, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 41 ft^3/s (1.16 m^3/s) June 19, gage height, 7.26 ft (2.213 m); no peak above base of 50 ft^3/s (1.42 m^3/s); minimum daily discharge, 7.1 ft^3/s (0.20 m^3/s) May 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	12	12	9.1	10	13	13	10	12	8.7	11	12
2	13	12	12	9.4	11	13	13	9.8	12	9.4	13	12
3	13	12	12	9.6	11	14	13	9.8	12	9.1	13	12
4	13	12	14	9.6	11	14	14	9.8	12	8.9	13	12
5	13	11	16	9.6	12	14	14	9.6	12	8.7	14	12
6	13	11	15	9.4	12	14	14	8.7	11	7.6	14	12
7	12	11	14	9.0	12	14	14	8.2	11	8.0	14	12
8	13	11	14	8.8	12	14	13	8.4	11	8.2	16	12
9	13	11	14	8.4	12	14	12	8.2	11	8.2	18	12
10	13	11	14	8.8	12	14	12	8.7	10	8.7	19	13
11	12	11	13	9.0	12	15	12	8.4	9.6	8.4	15	12
12	12	11	14	9.0	12	15	12	8.0	9.6	8.2	14	11
13	11	12	14	9.4	12	14	12	7.6	9.6	8.9	14	11
14	11	12	13	9.6	12	15	12	7.1	9.0	8.2	14	11
15	11	12	13	9.6	12	15	12	7.6	9.0	7.6	14	11
16	11	12	14	9.6	14	15	12	7.3	9.0	8.2	15	11
17	11	12	14	9.6	13	15	12	7.3	8.8	7.8	16	11
18	11	12	14	9.4	13	15	12	7.3	8.4	7.8	14	11
19	11	12	11	9.4	13	15	13	7.8	7.6	8.2	13	11
20	11	12	10	9.0	13	15	14	7.8	7.6	7.8	13	11
21	11	12	10	9.6	13	15	15	7.6	8.0	7.8	12	11
22	11	12	11	10	13	16	14	7.8	7.8	7.8	12	10
23	11	11	11	10	13	16	13	8.4	8.0	9.4	12	10
24	11	11	11	11	13	16	12	9.4	8.0	10	13	11
25	11	11	11	11	13	16	12	9.8	7.8	11	12	10
26	11	11	11	10	13	16	11	9.8	8.2	11	12	11
27	11	11	11	9.6	14	16	11	10	8.2	11	12	10
28	11	11	10	9.4	14	15	11	10	8.2	11	12	11
29	11	11	10	9.4	13	14	11	11	8.9	11	11	11
30	12	11	9.6	9.8	---	14	11	12	8.7	12	12	10
31	12	---	9.4	10	---	13	---	12	---	11	12	---
TOTAL	364	344	382.0	295.1	360	454	376	275.2	284.0	279.6	419	337
MEAN	11.7	11.5	12.3	9.52	12.4	14.6	12.5	8.88	9.47	9.02	13.5	11.2
MAX	13	12	16	11	14	16	15	12	12	12	19	13
MIN	11	11	9.4	8.4	10	13	11	7.1	7.6	7.6	11	10
AC-FT	722	682	758	585	714	901	746	546	563	555	831	668

CAL YR 1979 TOTAL 4611.2 MEAN 12.6 MAX 17 MIN 9.4 AC-FT 9150
WTR YR 1980 TOTAL 4169.9 MEAN 11.4 MAX 19 MIN 7.1 AC-FT 8270

06394000 BEAVER CREEK NEAR NEWCASTLE, WY

LOCATION.--Lat 43°32'07", long 104°07'02", in NW¼ sec.18, T.41 N., R.60 W., Weston County, Hydrologic Unit 10120107, at highway bridge, 2.2 mi (3.5 km) downstream from Sheep Creek, and 23 mi (37 km) south of Newcastle.

DRAINAGE AREA.--1,320 mi^2 (3,420 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February to September 1943, October 1944 to current year.

REVISED RECORDS.--WSP 1209: 1943, 1946, 1948-49.

GAGE.--Water-stage recorder. Altitude of gage is 3,660 ft (1,116 m), from topographic map. Prior to Nov. 1, 1945, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period, which are poor. There are many small reservoirs above station used for storage of stock and irrigation water, total capacity, about 11,000 acre-ft (13.6 hm^3). Diversions for irrigation of about 4,900 acres (19.8 km^2) above station.

AVERAGE DISCHARGE.--36 years (water years 1945-80), 31.9 ft^3/s (0.903 m^3/s), 23,110 acre-ft/yr (28.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,900 ft^3/s (337 m^3/s) June 16, 1962, gage height, 19.98 ft (6.090 m); no flow at times in several years.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 500 ft^3/s (14.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 16	0430	*840	23.8	a8.90	2.713

a-From floodmarks.

Minimum daily discharge, 0.09 ft^3/s (0.003 m^3/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	12	9.2	15	13	18	20	.99	3.5	.58	.37	2.8
2	3.6	12	9.2	15	13	17	21	.87	3.3	.58	.31	1.4
3	3.4	11	10	14	14	22	22	.87	82	.58	.25	.66
4	4.8	13	11	14	15	25	20	.75	31	.51	.20	.51
5	4.6	9.3	13	15	15	24	21	.75	9.0	.37	.25	.37
6	4.8	5.4	15	14	15	22	21	5.8	6.3	.37	.25	.25
7	5.2	7.8	17	13	15	20	26	2.4	8.4	.37	.20	.25
8	5.0	10	18	12	16	20	21	1.1	1.3	.37	.11	.20
9	4.1	9.4	18	10	16	21	12	.87	.75	.31	.09	.37
10	4.2	9.4	16	11	15	23	3.3	.87	.66	.37	.11	.37
11	4.4	8.8	14	11	14	27	3.0	3.0	.66	.31	.25	.37
12	4.4	8.4	13	12	14	30	1.3	4.1	.75	.31	.20	.25
13	5.3	9.1	12	13	13	29	.87	4.7	.66	.58	.20	.25
14	7.4	10	12	14	13	30	1.3	2.6	.87	.99	.20	.31
15	7.2	13	11	15	12	34	.99	2.8	.99	.87	1.6	.99
16	12	16	10	16	12	43	.75	2.0	253	.66	4.1	1.8
17	13	17	11	16	13	39	.58	1.4	18	.66	.66	3.5
18	13	16	13	15	14	37	.51	2.2	8.4	1.4	.44	6.0
19	13	14	14	14	17	35	2.0	1.4	9.0	1.4	.25	6.6
20	12	13	16	13	21	29	9.4	1.1	10	3.5	.44	6.0
21	13	11	14	13	25	32	6.9	1.1	8.1	4.7	.58	2.0
22	14	9.5	15	14	23	28	4.7	1.3	6.9	5.5	.51	.58
23	14	10	15	14	18	26	2.6	1.1	4.1	1.8	.44	.51
24	14	11	14	15	16	23	2.6	.99	3.8	.66	.37	.66
25	14	10	15	14	17	22	2.0	1.3	2.2	1.8	.31	.75
26	13	9.7	14	13	20	24	1.8	.99	1.3	4.1	.25	.75
27	13	9.2	14	12	23	23	1.4	.87	.66	2.4	.20	.66
28	13	8.3	13	11	24	23	1.3	.99	.51	1.4	.20	.58
29	10	7.8	13	9.0	21	23	1.1	1.6	.51	2.0	.11	.37
30	10	8.5	13	11	---	19	1.1	4.1	.51	1.3	.31	.37
31	13	---	14	12	---	21	---	3.0	---	.51	2.2	---
TOTAL	276.4	319.6	416.4	410.0	477	809	233.50	57.91	477.13	41.26	15.96	40.48
MEAN	8.92	10.7	13.4	13.2	16.4	26.1	7.78	1.87	15.9	1.33	.51	1.35
MAX	14	17	18	16	25	43	26	5.8	253	5.5	4.1	6.6
MIN	3.4	5.4	9.2	9.0	12	17	.51	.75	.51	.31	.09	.20
AC-FT	548	634	826	813	946	1600	463	115	946	82	32	80

CAL YR 1979 TOTAL 7174.98 MEAN 19.7 MAX 470 MIN .60 AC-FT 14230
WTR YR 1980 TOTAL 3574.64 MEAN 9.77 MAX 253 MIN .09 AC-FT 7090

06394000 BEAVER CREEK NEAR NEWCASTLE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-47, 1950-57, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)
OCT 04...	1715	5.8	12.0	2200	2000	570	180	790	7.4	9.8	200
NOV 08...	0900	13	.0	1600	1400	450	120	470	5.1	6.0	200
DEC 12...	1545	12	.0	1800	1600	550	110	440	4.5	5.8	240
JAN 04...	0900	14	.0	1700	1500	520	95	260	2.8	4.0	260
FEB 19...	1455	17	.0	1600	1400	450	110	170	1.9	3.8	260
MAR 18...	1200	64	.5	910	700	260	60	370	5.4	6.0	260
APR 22...	1100	5.0	16.5	770	570	200	64	420	6.6	8.2	250
MAY 19...	1700	1.4	20.0	2100	1900	470	210	940	9.1	9.3	210
JUN 17...	1645	19	21.5	610	520	140	63	340	6.0	7.0	110
JUL 23...	1730	1.2	29.0	2100	2000	520	190	590	5.6	8.4	70
AUG 27...	1630	.31	18.5	3000	2900	620	350	1700	14	13	110
SEP 22...	1745	.37	16.5	1900	1800	480	160	490	4.9	5.7	120

DATE	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 05...	0	160	2400	950	1.0	2.7	5000	6.80	78.3	2.2	.030
NOV 08...	0	160	1500	620	.9	4.5	3270	4.45	115	.70	.000
DEC 12...	0	200	1800	560	.9	10	3600	4.90	117	.78	.000
JAN 04...	0	210	1500	290	.8	12	2810	3.82	106	1.2	.030
FEB 19...	0	210	1400	260	.8	11	2540	3.45	117	.69	.080
MAR 18...	0	210	920	430	.8	5.7	2180	2.96	377	.34	.320
APR 22...	0	200	1100	290	.9	.0	2200	2.99	29.7	<.01	.060
MAY 19...	0	170	2600	970	3.3	2.9	5300	7.21	20.0	.00	.010
JUN 17...	0	90	780	330	.7	6.0	1700	2.31	87.2	.16	.170
JUL 23...	0	57	2400	650	1.0	9.1	4400	5.98	14.3	.00	.000
AUG 27...	0	90	4000	1600	1.2	20	8400	11.4	7.03	.00	.010
SEP 22...	0	98	2000	620	1.0	2.9	3300	4.49	3.30	.00	.050

06395000 CHEYENNE RIVER AT EDGEMONT, SD

LOCATION.--Lat 43°18'20", long 103°49'14", in SW¼SE¼SE¼ sec.36, T.8 S., R.2 E., Fall River County, Hydrologic Unit 10120106, on right bank at downstream side of bridge on U.S. Highway 18, at Edgemont, 300 ft (91 m) downstream from Burlington Northern Railroad bridge, and 600 ft (183 m) upstream from Cottonwood Creek.

DRAINAGE AREA.--7,143 mi^2 (18,500 km^2).

PERIOD OF RECORD.--June 1903 to November 1906 (no winter records), April 1928 to February 1933, October 1946 to current year.

REVISED RECORDS.--WSP 1086: Drainage area. WSP 1116: 1947.

GAGE.--Water-stage recorder. Datum of gage is 3,414.56 ft (1,040.758 m), National Geodetic Vertical Datum of 1929. Prior to Dec. 1, 1906, nonrecording gage 20 ft (6 m) upstream at datum 0.7 ft (0.21 m) lower. Apr. 11, 1928, to Feb. 28, 1933, Oct. 4, 1946, to Oct. 23, 1947, and Jan. 11, 1961, to Apr. 24, 1963, nonrecording gage, and Oct. 24, 1947, to Jan. 10, 1961, and Apr. 25, 1963, to Sept. 30, 1972, water-stage recorder all at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter periods, which are poor. Many small reservoirs above station used for stock and irrigation water, total capacity, about 45,000 acre-ft (55.5 hm^3).

AVERAGE DISCHARGE.--38 years, 101 ft^3/s (2.860 m^3/s), 73,170 acre-ft/yr (90.2 hm^3/yr); median of yearly mean discharges, 76 ft^3/s (2.15 m^3/s), 55,000 acre-ft/yr (68 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft^3/s (793 m^3/s) May 20, 1978, gage height, 13.65 ft (4.161 m), present datum; no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 12, 1920, reached a stage of 13.0 ft (3.96 m) and May 1, 1922, 14.0 ft (4.27 m), present datum, from floodmarks at railroad bridge.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,500 ft^3/s (70.8 m^3/s) Aug. 17, gage height, 4.64 ft (1.414 m), no other peak above base of 1,500 ft^3/s (42.5 m^3/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	23	5.2	8.0	6.8	123	67	9.8	35	10	3.2	27
2	3.4	21	5.2	7.5	7.0	146	67	11	49	7.0	1.7	21
3	2.1	20	5.2	7.5	7.5	159	68	10	27	4.3	.83	18
4	2.1	22	5.2	8.0	8.0	143	67	10	44	4.7	.18	14
5	2.4	20	5.2	8.5	8.6	153	65	9.9	36	3.0	.11	14
6	2.7	21	5.4	8.0	13	208	60	9.6	31	1.5	.12	13
7	3.4	18	5.6	7.8	11	204	62	8.9	25	1.5	.00	11
8	3.8	15	6.0	7.8	12	219	60	9.2	22	.61	.00	8.9
9	4.2	13	6.5	7.8	18	230	53	9.8	23	.31	.00	7.5
10	4.2	18	7.0	8.2	22	251	40	9.5	19	.03	.00	5.1
11	4.6	18	6.5	8.8	20	276	41	16	14	.00	.00	4.7
12	4.6	20	6.5	9.4	22	289	43	23	14	.00	.00	3.3
13	5.4	20	6.5	10	22	293	39	25	12	.00	.00	2.4
14	5.8	29	7.0	11	25	246	36	22	136	.43	.00	1.5
15	8.1	19	7.0	12	30	120	33	19	208	.80	1.8	.90
16	9.2	18	6.0	11	34	90	30	19	275	.00	1.2	2.1
17	11	17	6.5	10	34	80	28	20	494	.00	1760	2.1
18	14	19	7.0	10	34	75	25	18	201	.00	662	1.2
19	14	23	7.0	9.6	28	77	24	18	138	.00	364	.90
20	14	24	6.6	8.8	23	7.0	24	17	89	.00	180	1.1
21	14	21	6.6	8.8	646	8.0	23	16	68	.00	109	.60
22	14	20	6.6	9.0	710	79	22	16	58	.00	79	.00
23	15	19	7.0	9.5	542	67	18	12	66	.00	71	.06
24	16	18	7.5	10	554	69	16	11	68	.02	55	.06
25	18	16	7.5	9.0	159	61	15	9.2	42	.56	46	.00
26	17	13	7.0	8.0	129	65	13	8.6	28	1.9	39	.08
27	17	10	7.0	7.0	150	60	13	8.6	22	36	37	.30
28	18	8.6	7.0	6.0	98	69	12	8.1	18	88	36	.27
29	23	6.2	7.0	5.0	79	66	12	7.6	15	18	27	.10
30	31	6.2	7.0	5.5	---	67	10	68	12	9.0	36	.07
31	23	---	7.5	6.0	---	65	---	34	---	5.7	43	---
TOTAL	331.6	536.0	200.8	263.5	3452.9	4065.0	1086	493.8	2289	193.36	3553.14	161.24
MEAN	10.7	17.9	6.48	8.50	119	131	36.2	15.9	76.3	6.24	115	5.37
MAX	31	29	7.5	12	710	293	68	68	494	88	1760	27
MIN	2.1	6.2	5.2	5.0	6.8	7.0	10	7.6	12	.00	.00	.00
AC-FT	658	1060	398	523	6850	8060	2150	979	4540	384	7050	320

CAL YR 1979 TOTAL 30646.90 MEAN 84.0 MAX 2240 MIN 2.1 AC-FT 60790
WTR YR 1980 TOTAL 16626.34 MEAN 45.4 MAX 1760 MIN .00 AC-FT 32980

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY

LOCATION.--Lat 43°59'04", long 105°23'16", in NW¼NE¼NE¼ sec.9, T.46 N., R.71 W., Campbell County, Hydrologic Unit 10120201, on right bank 200 ft (61 m) downstream from bridge on county road, 1.2 mi (1.9 km) downstream from Rattlesnake Creek, 10.0 mi (16.1 km) southwest of Piney, 15.5 mi (24.9 km) north of Reno Junction, and 22 mi (35 km) south of Gillette.

DRAINAGE AREA.--495 mi^2 (1,282 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

REVISED RECORD.--WDR WY-78-1.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,540 ft (1,384 m), from topographic map.

REMARKS.--Records fair. No diversions above station. Several small stockwater reservoirs above station.

AVERAGE DISCHARGE.--5 years, 2.56 ft^3/s (0.072 m^3/s), 1,850 acre-ft/yr (2.28 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,100 ft^3/s (116 m^3/s) May 18, 1978, gage height, 11.33 ft (3.453 m), caused by dam failure upstream, from rating curve extended above 1,200 ft^3/s (34.0 m^3/s) on basis of flow over road and culverts computation of peak flow; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4.0 ft^3/s (0.11 m^3/s) June 2, gage height, 2.05 ft (0.625 m); maximum gage height, 2.49 ft (0.759 m) Jan. 9 (backwater from ice); no flow for many days during year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.01	.16	.27	.46	.65	.32	.01	.41	.01	.00	.05
2	.01	.01	.19	.27	.42	.74	.32	.01	2.3	.01	.00	.04
3	.01	.01	.19	.50	.40	.65	.32	.01	1.6	.00	.00	.03
4	.01	.01	.32	.50	.40	.57	.13	.01	.65	.00	.00	.02
5	.01	.01	.43	.50	.40	.57	.16	.01	.37	.00	.00	.01
6	.01	.01	.43	.43	.40	.57	.23	.01	.27	.00	.00	.01
7	.01	.01	.37	.33	.44	.65	.43	.01	.19	.00	.00	.01
8	.01	.01	.32	.30	.46	.65	.27	.01	.13	.00	.00	.00
9	.01	.01	.32	.24	.52	.74	.16	.01	.08	.00	.00	.00
10	.00	.01	.37	.27	.56	.74	.10	.01	.13	.00	.00	.00
11	.00	.01	.27	.32	.66	.93	.16	.01	.16	.00	.00	.00
12	.00	.01	.23	.70	.68	.83	.16	.01	.03	.00	.00	.00
13	.00	.01	.23	.76	.64	.83	.16	.01	.04	.00	.00	.00
14	.00	.01	.23	.86	.65	.83	.43	.01	.01	.00	.00	.00
15	.00	.01	.27	.93	.65	.83	.16	.01	.01	.00	.01	.00
16	.00	.01	.16	1.2	.50	.74	.13	.01	.04	.00	.04	.00
17	.00	.08	.08	1.2	.57	.65	.03	.01	.01	.00	.03	.00
18	.00	.65	.10	1.0	.65	.57	.05	.01	.01	.00	.00	.00
19	.01	.65	.16	.83	1.0	.57	.27	.01	.01	.00	.00	.00
20	.01	.74	.19	.76	1.6	.43	1.0	.01	.01	.00	.03	.00
21	.00	.43	1.9	.70	1.6	.37	.32	.01	.01	.00	.03	.00
22	.00	.57	1.7	.78	1.2	.23	.10	.01	.01	.00	.01	.00
23	.00	.50	1.2	.83	.93	.27	.08	.01	.17	.00	.01	.00
24	.00	.50	.74	.93	.83	.27	.03	.01	.00	.00	.01	.00
25	.00	.37	.65	.93	.83	.27	.03	.01	.00	.00	.00	.00
26	.01	.37	.57	.83	.83	.37	.03	.01	.03	.00	.00	.00
27	.01	.37	.50	.65	1.0	.32	.03	.01	.00	.00	.00	.00
28	.01	.27	.43	.32	1.2	.23	.03	.01	.00	.00	.00	.00
29	.01	.16	.43	.27	.83	.23	.02	.01	.00	.00	.00	.00
30	.01	.16	.37	.27	---	.32	.01	.01	.02	.00	.01	.00
31	.01	---	.27	.32	---	.32	---	.11	---	.00	.05	---
TOTAL	.17	5.98	13.78	19.00	21.31	16.94	5.67	.41	6.70	.02	.23	.17
MEAN	.005	.20	.44	.61	.73	.55	.19	.013	.22	.001	.007	.006
MAX	.01	.74	1.9	1.2	1.6	.93	1.0	.11	2.3	.01	.05	.05
MIN	.00	.01	.08	.24	.40	.23	.01	.01	.00	.00	.00	.00
AC-FT	.3	12	27	38	42	34	11	.8	13	.04	.5	.3

CAL YR 1979 TOTAL 825.47 MEAN 2.26 MAX 330 MIN .00 AC-FT 1640
WTR YR 1980 TOTAL 90.38 MEAN .25 MAX 2.3 MIN .00 AC-FT 179

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1976 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT CONCENTRATIONS: October 1976 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1976 to current year.

INSTRUMENTATION.--Sediment pumping sampler since April 1977.

REMARKS.--No flow was observed many days in October, June, July, August, and September.

REVISED RECORDS.--WDR WY-79-1: 1978.

EXTREMES FOR PERIOD OF RECORD.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean observed, 329 mg/L June, 20, 1980; minimum daily mean, 0.0 mg/L many days.
SEDIMENT LOAD: Maximum daily, 2,780 tons (2,520 tonnes) May 19, 1978; minimum daily, 0 tons many days each year.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean observed, 329 mg/L June 20; minimum daily mean, 0.0 mg/L many days.
SEDIMENT LOAD: Maximum daily, 1.2 tons (1.1 tonnes) June 2; minimum daily, 0 tons on many days during year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	HARD-NESS (MG/L AS CACO3)
DEC										
05...	1600	--	.43	6000	7.6	2.0	8	9.4	2.0	1600
JAN										
09...	1500	.24	--	5500	7.5	.5	10	9.2	1.7	2000
FEB										
23...	0900	--	.93	3460	7.6	.0	7	9.9	3.0	1300
APR										
16...	1415	--	--	4600	7.9	12.5	7	10.5	--	--
18...	0930	--	.05	3300	7.9	14.0	9	9.8	2.9	1400
MAY										
15...	1200	--	--	>8000	7.9	16.5	5	12.4	--	--
16...	1200	.01	--	3900	8.1	14.0	10	10.8	3.9	1700
JUN										
18...	1330	--	--	3900	--	26.0	7	13.8	--	--
18...	1400	--	.01	--	--	26.0	--	--	--	1600
AUG										
24...	1400	--	.00	7300	--	21.5	15	10.4	--	--
SEP										
27...	1345	--	.00	1700	7.9	18.0	15	7.8	--	--

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
DEC										
05...	1300	230	260	640	6.9	15	300	3100	31	.5
JAN										
09...	1700	350	280	700	6.8	19	360	3100	28	.6
FEB										
23...	1100	290	150	390	4.6	11	220	1900	18	.4
APR										
16...	--	--	--	--	--	--	--	--	--	--
18...	1200	290	160	340	4.0	13	230	1800	19	.5
MAY										
15...	--	--	--	--	--	--	--		--	--
16...	1400	350	290	400	4.2	17	320	2100	51	.5
JUN										
18...	--	--	--	--	--	--	--	--	--	--
18...	1400	210	250	430	4.7	17	190	2200	22	.5
AUG										
24...	--	--	--	--	--	--	--	--	--	--
SEP										
27...	--	--	--	--	--	--	--	--	--	--

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)
DEC										
05...	3.9	--	4460	6.07	5.18	.04	--	.140	--	.17
JAN										
09...	7.6	--	4700	6.39	3.05	.17	--	.160	--	.19
FEB										
23...	6.7	--	2900	3.94	7.28	.15	--	.100	--	.12
APR										
14...	--	--	--	--	--	--	--	--	--	--
18...	2.4	--	2760	3.75	.37	.02	--	.080	--	.10
MAY										
15...	--	--	--	--	--	--	--	--	--	--
16...	1.4	--	3310	4.50	.09	.03	--	.100	--	.12
JUN										
18...	--	--	--	--	--	--	--	--	--	--
18...	.9	3610	3250	4.42	.09	.02	.05	.040	.070	.05
AUG										
24...	--	--	--	--	--	--	--	--	--	--
SEP										
27...	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	NITRO-GEN, DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
DEC										
05...	--	.80	--	.94	--	--	.98	4.3	--	.040
JAN										
09...	--	1.1	--	1.3	--	--	1.5	6.5	--	.040
FEB										
23...	--	1.0	--	1.1	--	--	1.3	5.5	--	.100
APR										
14...	--	--	--	--	--	--	--	--	--	--
18...	--	.82	--	.90	--	--	.92	4.1	--	.060
MAY										
15...	--	--	--	--	--	--	--	--	--	--
16...	--	1.1	--	1.2	--	--	1.2	5.4	--	.090
JUN										
18...	--	--	--	--	--	--	--	--	--	--
18...	.09	.95	.90	.99	.02	.97	1.0	4.5	1.0	.040
AUG										
24...	--	--	--	--	--	--	--	--	--	--
SEP										
27...	--	--	--	--	--	--	--	--	--	--

DATE	PHOS-PHORUS, TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	IN-VERTE-BRATES, BENTHIC WET WT. (G/SQ METER)	IN-VERTE-BRATES, BENTHIC TOTAL (ORG/SQ METER)
DEC									
05...	.12	--	--	--	--	--	--	--	--
JAN									
09...	.12	--	--	--	--	--	--	--	--
FEB									
23...	.31	--	--	--	--	.00	1	--	--
APR									
14...	--	--	--	--	--	--	--	--	--
18...	.18	--	--	--	--	--	9	--	--
MAY									
15...	--	--	--	--	--	--	--	--	--
16...	.28	--	--	--	--	.00	2	--	--
JUN									
18...	--	--	--	--	--	--	--	--	--
18...	.12	.010	15	.7	6.1	--	2	--	--
AUG									
24...	--	--	--	--	--	--	--	8.6	6850
SEP									
27...	--	--	--	--	--	--	--	--	--

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)
DEC 05...	1600	140	120	20	1	0	1	--	--	--	0	0
JAN 09...	1500	300	--	--	--	--	--	--	--	--	0	--
FEB 23...	0900	--	--	--	--	--	--	--	--	--	--	--
APR 18...	0930	100	--	--	1	--	--	--	--	--	0	--
MAY 16...	1200	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	1400	70	30	40	3	2	1	100	0	100	--	--

DATE	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
DEC 05...	0	170	4	0	10	10	10	0	--	--	--	4
JAN 09...	--	180	2	--	--	10	--	--	--	--	--	0
FEB 23...	--	100	--	--	--	--	--	--	--	--	--	--
APR 18...	--	260	2	--	--	0	--	--	--	--	--	4
MAY 16...	--	160	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	190	0	0	1	0	0	0	0	0	1	6

DATE	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)
DEC 05...	0	5	530	--	40	4	2	2	140	0	150
JAN 09...	--	--	250	200	50	5	--	--	170	--	--
FEB 23...	--	--	--	--	50	--	--	--	--	--	--
APR 18...	--	--	560	460	100	0	--	--	90	--	--
MAY 16...	--	--	--	--	160	--	--	--	--	--	--
JUN 18...	1	3	440	410	30	1	0	4	--	--	--

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)
DEC 05...	370	30	340	.0	.0	.0	3	3	0	4	1
JAN 09...	250	--	--	.0	--	--	5	--	--	3	--
FEB 23...	--	--	--	--	--	--	--	--	--	--	--
APR 18...	1000	--	--	.1	--	--	2	--	--	8	--
MAY 16...	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	530	80	450	.0	.0	.0	--	--	--	4	0

DATE	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
DEC 05...	3	0	0	0	--	--	--	<1.0	50	10	40
JAN 09...	--	0	--	--	--	--	--	--	--	--	--
FEB 23...	--	--	--	--	--	--	--	--	--	--	--
APR 18...	--	0	--	--	--	--	--	--	30	--	--
MAY 16...	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	6	1	0	1	2	2	0	--	10	0	10

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
DEC 05...	1600	<94	<.5	<25	1.2	<22	1.3	.10	9.0	<64	<.3

DATE	TIME	TEMPERATURE, WATER (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM
APR 23...	1750	10.0	.07	5	6	10	19

DATE	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
APR 23...	27	36	51	69	81	94	100

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.01		.00	.01		.00	.16		.01
2	.01		.00	.01		.00	.19		.01
3	.01		.00	.01		.00	.19		.01
4	.01		.00	.01		.00	.32		.02
5	.01		.00	.01		.00	.43		.02
6	.01		.00	.01		.00	.43		.02
7	.01		.00	.01		.00	.37		.02
8	.01		.00	.01		.00	.32		.02
9	.01		.00	.01		.00	.32		.02
10	.00		.00	.01		.00	.37		.02
11	.00		.00	.01		.00	.27		.01
12	.00		.00	.01		.00	.23		.01
13	.00		.00	.01		.00	.23		.01
14	.00		.00	.01		.00	.23		.01
15	.00		.00	.01		.00	.27		.01
16	.00		.00	.01		.00	.16		.02
17	.00		.00	.08		.02	.08		.01
18	.00		.00	.65		.03	.10		.01
19	.01		.00	.65		.03	.16		.01
20	.01		.00	.74		.04	.19		.01
21	.00		.00	.43		.02	1.9		.09
22	.00		.00	.57		.03	1.7		.08
23	.00		.00	.50		.03	1.2		.06
24	.00		.00	.50		.03	.74		.04
25	.00		.00	.37		.02	.65		.03
26	.01		.00	.37		.02	.57		.03
27	.01		.00	.37		.02	.50		.02
28	.01		.00	.27		.02	.43		.02
29	.01		.00	.16		.01	.43		.02
30	.01		.00	.16		.01	.37		.02
31	.01		.00	---			.27		.01
TOTAL	0.17		0.00	5.98		0.33	13.78		0.70
		JANUARY			FEBRUARY			MARCH	
1	.27		.01	.46		.02	.65		.05
2	.27		.01	.42		.02	.74		.05
3	.50		.03	.40		.02	.65		.05
4	.50		.03	.40		.02	.57		.05
5	.50		.03	.40		.02	.57		.05
6	.43		.02	.40		.02	.57		.05
7	.33		.02	.44		.02	.65		.06
8	.30		.02	.46		.02	.65		.06
9	.24		.01	.52		.03	.74		.08
10	.27		.01	.56		.03	.74		.08
11	.32		.02	.66		.03	.93		.10
12	.70		.04	.68		.03	.83		.09
13	.76		.04	.64		.03	.83		.09
14	.86		.04	.65		.03	.83		.09
15	.93		.05	.65		.03	.83		.09
16	1.2		.06	.50		.03	.74		.08
17	1.2		.06	.57		.03	.65		.06
18	1.0		.05	.65		.03	.57		.06
19	.83		.04	1.0		.05	.57		.06
20	.76		.04	1.6		.08	.43		.05
21	.70		.04	1.6		.08	.37		.04
22	.78		.04	1.2		.06	.23		.03
23	.83		.04	.93		.05	.27		.03
24	.93		.05	.83		.04	.27		.03
25	.93		.05	.83		.04	.27		.03
26	.83		.04	.83		.04	.37		.04
27	.65		.03	1.0		.05	.32		.03
28	.32		.02	1.2		.06	.23		.03
29	.27		.02	.83		.05	.23		.03
30	.27		.02	---			.32		.04
31	.32		.02	---			.32		.04
TOTAL	19.00		1.00	21.31		1.06	16.94		1.72

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	.32	---	.04	.01	110	.00	.41	198	.27
2	.32	---	.04	.01	115	.00	2.3	196	1.2
3	.32	---	.04	.01	133	.00	1.6	228	.98
4	.13	---	.01	.01	150	.00	.65	161	.28
5	.16	---	.02	.01	94	.00	.37	161	.16
6	.23	---	.03	.01	117	.00	.27	140	.10
7	.43	---	.04	.01	196	.01	.19	115	.06
8	.27	---	.03	.01	168	.00	.13	71	.02
9	.16	---	.02	.01	150	.00	.08	80	.02
10	.10	---	.01	.01	129	.00	.13	76	.03
11	.16	---	.02	.01	166	.00	.16	64	.03
12	.16	---	.02	.01	239	.01	.03	67	.01
13	.16	---	.02	.01	196	.01	.04	55	.01
14	.43	---	.05	.01	115	.00	.01	113	.00
15	.16	---	.02	.01	124	.00	.01	138	.00
16	.13	---	.01	.01	78	.00	.04	60	.01
17	.03	---	.01	.01	69	.00	.01	168	.00
18	.05	---	.03	.01	74	.00	.01	274	.01
19	.27	---	.05	.01	264	.01	.01	322	.01
20	1.0	---	.10	.01	202	.01	.01	329	.01
21	.32	---	.06	.01	189	.01	.01	322	.01
22	.10	129	.03	.01	184	.00	.01	299	.01
23	.08	90	.02	.01	237	.01	.17	281	.13
24	.03	124	.01	.01	232	.01	.00	317	.00
25	.03	168	.01	.01	225	.01	.00	---	.00
26	.03	140	.01	.01	232	.01	.03	214	.02
27	.03	129	.01	.01	269	.01	.00	---	.00
28	.03	108	.01	.01	239	.01	.00	---	.00
29	.02	129	.01	.01	269	.01	.00	---	.00
30	.01	101	.00	.01	193	.01	.02	131	.01
31	---	---	---	.11	290	.09	---	---	---
TOTAL	5.67	---	0.78	0.41	---	0.23	6.70	---	3.39
		JULY			AUGUST			SEPTEMBER	
1	.01	260	.01	.00	---	.00	.05		.01
2	.01	251	.01	.00	---	.00	.04		.01
3	.00	---	.00	.00	---	.00	.03		.01
4	.00	---	.00	.00	---	.00	.02		.00
5	.00	---	.00	.00	---	.00	.01		.00
6	.00	---	.00	.00	---	.00	.01		.00
7	.00	---	.00	.00	---	.00	.01		.00
8	.00	---	.00	.00	---	.00	.00		.00
9	.00	---	.00	.00	---	.00	.00		.00
10	.00	---	.00	.00	---	.00	.00		.00
11	.00	---	.00	.00	---	.00	.00		.00
12	.00	---	.00	.00	---	.00	.00		.00
13	.00	---	.00	.00	---	.00	.00		.00
14	.00	---	.00	.00	---	.00	.00		.00
15	.00	---	.00	.01	---	.00	.00		.00
16	.00	---	.00	.04	---	.01	.00		.00
17	.00	---	.00	.03	---	.01	.00		.00
18	.00	---	.00	.00	---	.00	.00		.00
19	.00	---	.00	.00	---	.00	.00		.00
20	.00	---	.00	.03	---	.01	.00		.00
21	.00	---	.00	.03	---	.01	.00		.00
22	.00	---	.00	.01	---	.00	.00		.00
23	.00	---	.00	.01	---	.00	.00		.00
24	.00	---	.00	.01	---	.00	.00		.00
25	.00	---	.00	.00	---	.00	.00		.00
26	.00	---	.00	.00	---	.00	.00		.00
27	.00	---	.00	.00	---	.00	.00		.00
28	.00	---	.00	.00	---	.00	.00		.00
29	.00	---	.00	.00	---	.00	.00		.00
30	.00	---	.00	.01	140	.00	.00		.00
31	.00	---	.00	.05	55	.01	---		
TOTAL	0.02	---	0.02	0.23	---	0.05	0.17		0.03
YEAR	90.38		9.31						

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

BENTHIC INVERTEBRATE ANALYSES

DATE TIME	AUG 24,80 1400	AUG 24,80 1430
TOTAL COUNT	157	0
DIVERSITY: PHYLUM	0.3	0.0
.CLASS	0.4	0.0
..ORDER	0.9	0.0
...FAMILY	0.9	0.0
....GENUS	2.6	0.0
....GENUS-INSECTA	2.3	0.0
ORGANISM	COUNT	COUNT
ANNELIDA		
.OLIGOCHAETA		
..PLESIOPORA		
...TUBIFICIDAE		
....LIMNODRILUS	6	--
ARTHROPODA (ARTHROPODS)		
.CRUSTACEA		
..AMPHIPODA		
...TALITRIDAE		
....HYALLELA	2	--
.INSECTA		
..DIPTERA		
...CHIRONOMIDAE		
....CHIRONOMUS	11	--
....CLADOTANYTARSUS	5	--
....CRYPTOTENDIPES	4	--
....LIMNOCHIRONOMUS	27	--
....PARATANYTARSUS	17	--
....TANYPUS	1	--
....TANYTARSUS	68	--
..EPHEMEROPTERA		
...CAENIDAE		
....CAENIS	14	--
..ODONATA		
...COENAGRIONIDAE		
....UNKNOWN GENUS	1	--
MOLLUSCA (MOLLUSCS)		
.GASTROPODA		
..BASOMMATOPHORA		
...PHYSIDAE		
....PHYSA	1	--

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY

LOCATION.--Lat 44°01'30", long 105°19'35", in NW¼SE¼NE¼ sec.25, T.47 N., R.71 W., Campbell County, Hydrologic Unit 10120201, on left bank 4.1 mi (6.6 km) upstream from Dry Creek, 4.8 mi (7.7 km) downstream from Coal Creek, 6.0 mi (9.7 km) southwest of Piney, and 20 mi (32 km) southeast of Gillette.

DRAINAGE AREA.--594 mi² (1,538 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,460 ft (1,359 m), from topographic map.

REMARKS.--Records fair. Several small stockwater and soil conservation reservoirs above station.

AVERAGE DISCHARGE.--5 years, 5.22 ft³/s (0.148 m³/s), 3,780 acre-ft/yr (4.66 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 5,630 ft³/s (159 m³/s) May 18, 1978, gage height, about 16.3 ft (4.97 m), from floodmarks caused by dam failure; no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21 ft³/s (0.59 m³/s) Feb. 21, gage height, 3.75 ft (1.143 m), backwater from ice; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.05	.08	.41	.28	2.3	.46	.08	.72	.00	.00	.02
2	.05	.04	.08	.46	.24	1.3	.52	.10	.17	.00	.00	.02
3	.05	.07	.08	.46	.24	1.2	.58	.08	.02	.00	.00	.00
4	.05	.08	.10	.46	.24	.88	.52	.07	.03	.00	.00	.00
5	.07	.08	.08	.41	.24	.80	.52	.08	.28	.00	.00	.00
6	.07	.07	.08	.28	.24	.72	.58	.08	.58	.00	.00	.00
7	.07	.08	.05	.24	.28	.72	.46	.05	.41	.00	.00	.00
8	.07	.08	.04	.20	.28	.65	.41	.04	.28	.00	.00	.00
9	.05	.07	.05	.14	.41	.72	.41	.07	.20	.00	.00	.00
10	.05	.07	.04	.08	.41	.72	.58	.10	.14	.00	.00	.00
11	.05	.08	.03	.14	.41	.97	.65	.10	.07	.00	.00	.00
12	.05	.08	.02	.14	.60	.97	.46	.12	.04	.00	.00	.00
13	.05	.08	.02	.24	.52	.88	.41	.10	.02	.00	.00	.00
14	.05	.08	.04	.30	.52	1.1	.36	.07	.02	.00	.00	.00
15	.05	.08	.05	.46	.46	1.3	.36	.05	.28	.00	.00	.00
16	.05	.08	.04	.65	.41	3.5	.28	.05	.10	.00	.00	.00
17	.05	.07	.02	.80	.46	1.5	.32	.05	.28	.00	.00	.03
18	.05	.07	.08	.72	.52	.88	.36	.04	.41	.00	.00	.03
19	.05	.07	.20	.52	.58	.80	.24	.04	.20	.00	.00	.02
20	.05	.05	.30	.46	1.1	.72	.17	.03	.14	.00	.02	.00
21	.05	.08	.60	.41	9.5	1.8	.12	.02	.07	.00	.03	.00
22	.05	.05	.66	.52	11	.58	.10	.02	.04	.00	.00	.00
23	.05	.07	.74	.58	4.4	.52	.21	.02	.02	.00	.00	.00
24	.04	.10	.86	.58	2.6	.58	.24	.02	.00	.00	.00	.02
25	.04	.10	1.1	.65	1.6	.41	.17	.07	.00	.00	.00	.03
26	.04	.10	.97	.52	1.5	.46	.12	.01	.00	.00	.00	.02
27	.05	.08	.72	.32	1.6	.41	.10	.01	.00	.00	.00	.01
28	.05	.05	.97	.24	1.5	.46	.10	.02	.00	.00	.00	.01
29	.08	.05	.80	.14	1.4	.52	.07	.05	.00	.00	.00	.01
30	.10	.08	.58	.14	---	.52	.05	.07	.00	.00	.01	.00
31	.07	---	.46	.18	---	.46	---	.07	---	.00	.05	---
TOTAL	1.69	2.19	9.94	11.85	43.54	29.35	9.93	1.78	4.52	.00	.11	.22
MEAN	.055	.073	.32	.38	1.50	.95	.33	.057	.15	.000	.004	.007
MAX	.10	.10	1.1	.80	11	3.5	.65	.12	.72	.00	.05	.03
MIN	.04	.04	.02	.08	.24	.41	.05	.01	.00	.00	.00	.00
AC-FT	3.4	4.3	20	24	86	58	20	3.5	9.0	.00	.2	.4

CAL YR 1979 TOTAL 1452.90 MEAN 3.98 MAX 253 MIN .01 AC-FT 2880
WTR YR 1980 TOTAL 115.12 MEAN .31 MAX 11 MIN .00 AC-FT 228

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1976 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT CONCENTRATIONS: October 1976 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1976 to current year.

INSTRUMENTATION.--Sediment pumping sampler since April 1977.

REVISED RECORDS.--WDR WY-79-1: 1978.

EXTREMES FOR PERIOD OF RECORD.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean observed, 2,300 mg/L July 9, 1977 (possibly higher in May of 1978); minimum daily mean observed, 0.0 mg/L some days most years.
SEDIMENT LOAD: Maximum daily, 40,100 tons (36,400 tonnes) May 18, 1978; minimum daily, 0 tons on many days each year.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean observed, 247 mg/L Feb. 21; minimum daily mean, 0.0 mg/L on many days during June, July, August, and September.
SEDIMENT LOAD: Maximum daily, 7.8 tons (7.1 tonnes) June 11; minimum daily, 0 tons on many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT												
11...	1530	--	.05	4400	8.1	13.0	10	12.6	3.5	1600	1500	390
NOV												
07...	1550	--	.08	4000	7.9	4.0	5	14.8	2.2	1500	1200	310
DEC												
05...	1520	.08	--	4600	7.8	1.0	7	10.8	4.4	1600	1200	300
JAN												
09...	1400	.14	--	5800	7.4	.0	10	7.8	2.9	2600	2200	550
FEB												
23...	0730	--	2.4	1330	7.7	.5	210	12.2	10	410	310	97
APR												
14...	1215	--	--	4200	8.2	11.0	7	11.4	--	--	--	--
18...	0800	--	.36	3350	8.0	9.0	10	9.1	3.1	1400	1100	300
MAY												
15...	0930	--	--	6500	7.8	12.0	7	9.2	--	--	--	--
16...	1050	--	.05	4100	8.1	11.0	9	9.0	2.6	1700	1400	360
JUN												
17...	1315	--	.65	3800	8.0	24.0	9	12.6	1.8	1300	1100	280
18...	1200	--	.46	4010	--	21.0	10	9.8	--	1600	1300	310
AUG												
24...	1250	--	.00	5300	--	22.5	2	10.8	--	--	--	--
SEP												
27...	1430	--	.00	5000	8.6	17.0	3	15.0	--	--	--	--

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
OCT												
11...	140	390	4.3	24	84	2300	15	.4	2.8	--	3310	4.50
NOV												
07...	180	380	4.2	20	320	2000	15	.3	5.7	--	3100	4.22
DEC												
05...	210	430	4.7	12	410	2100	14	.2	12	--	3330	4.53
JAN												
09...	300	700	6.0	24	430	3400	32	.5	10	--	5280	7.18
FEB												
23...	41	120	2.6	9.1	98	550	17	.3	5.5	--	899	1.22
APR												
14...	--	--	--	--	--	--	--	--	--	--	--	--
18...	150	350	4.1	14	240	1800	17	.4	1.4	--	2780	3.78
MAY												
15...	--	--	--	--	--	--	--	--	--	--	--	--
16...	190	430	4.6	21	290	2200	11	.4	.8	--	3390	4.61
JUN												
17...	150	340	4.1	19	200	1700	17	.5	4.4	--	2630	3.58
18...	190	480	5.3	16	230	2300	22	.5	2.0	3830	3460	4.71
AUG												
24...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
27...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)
OCT												
11...	.45	.72	--	.090	--	.11	--	1.3	--	1.4	--	--
NOV												
07...	.67	1.5	--	.100	--	.12	--	.68	--	.78	--	--
DEC												
05...	.72	2.0	--	.450	--	.54	--	.85	--	1.3	--	--
JAN												
09...	2.00	1.4	--	.350	--	.42	--	1.6	--	1.9	--	--
FEB												
23...	5.83	.65	--	.090	--	.11	--	1.9	--	2.0	--	--
APR												
14...	--	--	--	--	--	--	--	--	--	--	--	--
18...	2.70	.10	--	.150	--	.18	--	.95	--	1.1	--	--
MAY												
15...	--	--	--	--	--	--	--	--	--	--	--	--
16...	.46	.16	--	.160	--	.19	--	.84	--	1.0	--	--
JUN												
17...	4.62	.18	--	.060	--	.07	--	.91	--	.97	--	--
18...	4.30	.05	.08	.060	.070	.07	.09	1.1	1.0	1.2	.10	1.1
AUG												
24...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
27...	--	--	--	--	--	--	--	--	--	--	--	--

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, DISSOLVED (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
OCT											
11...	2.1	--	9.4	.010	.03	--	--	--	--	--	--
NOV											
07...	2.3	--	10	.030	.09	--	--	--	--	--	--
DEC											
05...	3.3	--	15	.010	.03	--	--	--	--	--	--
JAN											
09...	3.3	--	15	.030	.09	--	--	--	--	--	--
FEB											
23...	2.7	--	12	.190	.58	--	--	--	--	.00	4
APR											
14...	--	--	--	--	--	--	--	--	--	--	--
18...	1.2	--	5.3	.040	.12	--	--	--	--	--	0
MAY											
15...	--	--	--	--	--	--	--	--	--	--	--
16...	1.2	--	5.1	.050	.15	--	--	--	--	.00	2
JUN											
17...	1.2	--	5.1	.060	.18	--	--	--	--	--	2
18...	1.3	1.2	5.5	.060	.18	.010	20	.4	13	--	4
AUG											
24...	--	--	--	--	--	--	--	--	--	--	--
SEP											
27...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)
OCT												
11...	1530	110	110	0	1	1	0	--	--	--	0	0
NOV												
07...	1550	--	--	--	--	--	--	--	--	--	--	--
DEC												
05...	1520	--	--	--	--	--	--	--	--	--	--	--
JAN												
09...	1400	220	--	--	--	--	--	--	--	--	0	--
FEB												
23...	0730	--	--	--	--	--	--	--	--	--	--	--
APR												
18...	0800	120	--	--	0	--	--	--	--	--	0	--
MAY												
16...	1050	--	--	--	--	--	--	--	--	--	--	--
JUN												
17...	1315	--	--	--	--	--	--	--	--	--	--	--
18...	1200	340	320	20	2	1	1	0	0	0	--	--

DATE	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT												
11...	0	530	14	4	10	10	0	10	--	--	--	0
NOV												
07...	--	400	--	--	--	--	--	--	--	--	--	--
DEC												
05...	--	440	--	--	--	--	--	--	--	--	--	--
JAN												
09...	--	350	2	--	--	10	--	--	--	--	--	0
FEB												
23...	--	160	--	--	--	--	--	--	--	--	--	--
APR												
18...	--	370	2	--	--	0	--	--	--	--	--	5
MAY												
16...	--	380	--	--	--	--	--	--	--	--	--	--
JUN												
17...	--	410	--	--	--	--	--	--	--	--	--	--
18...	--	300	0	0	2	0	0	0	0	0	2	4

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM SUS-PENDED RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)
OCT											
11...	0	3	210	--	40	0	0	0	90	10	80
NOV											
07...	--	--	--	--	80	--	--	--	--	--	--
DEC											
05...	--	--	--	--	180	--	--	--	--	--	--
JAN											
09...	--	--	130	70	60	5	--	--	150	--	--
FEB											
23...	--	--	--	--	90	--	--	--	--	--	--
APR											
18...	--	--	330	280	50	2	--	--	80	--	--
MAY											
16...	--	--	--	--	110	--	--	--	--	--	--
JUN											
17...	--	--	--	--	50	--	--	--	--	--	--
18...	2	2	410	380	30	1	0	3	--	--	--

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, SUS-PENDED RECOV. (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)
OCT											
11...	80	0	80	.0	.0	.0	0	0	0	0	0
NOV											
07...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	--	--	--	--	--	--	--	--	--	--	--
JAN											
09...	490	--	--	.1	--	--	3	--	--	4	--
FEB											
23...	--	--	--	--	--	--	--	--	--	--	--
APR											
18...	460	--	--	.1	--	--	3	--	--	6	--
MAY											
16...	--	--	--	--	--	--	--	--	--	--	--
JUN											
17...	--	--	--	--	--	--	--	--	--	--	--
18...	490	50	440	.0	.0	.0	--	--	--	3	0

DATE	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT											
11...	4	2	0	2	--	--	--	.0	10	0	20
NOV											
07...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	--	--	--	--	--	--	--	--	--	--	--
JAN											
09...	--	0	--	--	--	--	--	--	--	--	--
FEB											
23...	--	--	--	--	--	--	--	--	--	--	--
APR											
18...	--	0	--	--	--	--	--	--	30	--	--
MAY											
16...	--	--	--	--	--	--	--	--	--	--	--
JUN											
17...	--	--	--	--	--	--	--	--	--	--	--
18...	3	1	0	1	0	0	0	--	40	30	10

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT 11...	1530	<63	<.4	23	<.4	24	<.4	.09	18	<43	<.3

DATE	TIME	TEMPER- ATURE, WATER (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM
OCT 23...	1530	9.5	.07	28	.01	13	16	23
NOV 06...	1255	--	.07	26	.00	--	--	--
APR 23...	1525	10.5	.24	--	--	3	5	8

DATE	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
OCT 23...	38	48	56	67	81	99	100	--
NOV 06...	--	--	--	--	--	--	--	--
APR 23...	12	17	21	30	46	64	93	100

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.04		.00	.05		.00	.08		.00
2	.05		.00	.04		.00	.08		.00
3	.05		.00	.07		.00	.08		.00
4	.05		.00	.08		.00	.10		.01
5	.07		.00	.08		.00	.08		.00
6	.07		.00	.07		.00	.08		.00
7	.07		.00	.08		.00	.05		.00
8	.07		.00	.08		.00	.04		.00
9	.05		.00	.07		.00	.05		.00
10	.05		.00	.07		.00	.04		.00
11	.05		.00	.08		.00	.03		.00
12	.05		.00	.08		.00	.02		.00
13	.05		.00	.08		.00	.02		.00
14	.05		.00	.08		.00	.04		.00
15	.05		.00	.08		.00	.05		.00
16	.05		.00	.08		.00	.04		.00
17	.05		.00	.07		.00	.02		.00
18	.05		.00	.07		.00	.08		.00
19	.05		.00	.07		.00	.20		.03
20	.05		.00	.05		.00	.30		.05
21	.05		.00	.08		.00	.60		.12
22	.05		.00	.05		.00	.66		.14
23	.05		.00	.07		.00	.74		.17
24	.04		.00	.10		.01	.86		.21
25	.04		.00	.10		.01	1.1		.30
26	.04		.00	.10		.01	.97		.25
27	.05		.00	.08		.00	.72		.16
28	.05		.00	.05		.00	.97		.25
29	.08		.00	.05		.00	.80		.19
30	.10		.01	.08		.00	.58		.12
31	.07		.00	---			.46		.09
TOTAL	1.69		0.01	2.19		0.03	9.94		2.09
		JANUARY			FEBRUARY			MARCH	
1	.41		.07	.28		.04	2.3		.86
2	.46		.09	.24		.03	1.3		.38
3	.46		.09	.24		.03	1.2		.34
4	.46		.09	.24		.03	.88		.22
5	.41		.07	.24		.03	.80		.19
6	.28		.04	.24		.03	.72		.16
7	.24		.03	.28		.04	.72		.16
8	.20		.03	.28		.04	.65		.14
9	.14		.02	.41		.07	.72		.16
10	.08		.00	.41		.07	.72		.16
11	.14		.02	.41		.07	.97		.25
12	.14		.02	.60		.12	.97		.25
13	.24		.03	.52		.10	.88		.22
14	.30		.05	.52		.10	1.1		.30
15	.46		.09	.46		.09	1.3		.38
16	.65		.14	.41		.07	3.5		1.6
17	.80		.19	.46		.09	1.5		.46
18	.72		.16	.52		.10	.88		.22
19	.52		.10	.58		.12	.80		.19
20	.46		.09	1.1		.30	.72		.12
21	.41		.07	9.5		6.3	1.8		.60
22	.52		.10	11		7.8	.58		.12
23	.58		.12	4.4		2.2	.52		.10
24	.58		.12	2.6		1.0	.58		.12
25	.65		.14	1.6		.52	.41		.07
26	.52		.10	1.5		.46	.46		.09
27	.32		.05	1.6		.52	.41		.07
28	.24		.03	1.5		.46	.46		.09
29	.14		.02	1.4		.42	.52		.10
30	.14		.02	---			.52		.10
31	.18		.02	---			.46		.09
TOTAL	11.85		2.21	43.54		21.25	29.35		8.31

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	.46	---	.09	.08	65	.01	.72	58	.11
2	.52	---	.10	.10	71	.02	.17	76	.04
3	.58	---	.12	.08	74	.02	.02	68	.00
4	.52	---	.10	.07	52	.01	.03	57	.00
5	.52	---	.10	.08	71	.02	.28	52	.04
6	.58	---	.12	.08	70	.02	.58	56	.09
7	.46	---	.09	.05	69	.01	.41	46	.05
8	.41	---	.07	.04	54	.01	.28	28	.02
9	.41	---	.07	.07	52	.01	.20	37	.02
10	.58	---	.12	.10	49	.01	.14	36	.01
11	.65	---	.14	.10	55	.01	.07	37	.01
12	.46	---	.09	.12	58	.02	.04	32	.00
13	.41	---	.07	.10	---	.01	.02	25	.00
14	.36	---	.06	.07	---	.00	.02	25	.00
15	.36	---	.06	.05	---	.00	.28	52	.04
16	.28	---	.04	.05	---	.00	.10	56	.02
17	.32	---	.05	.05	---	.00	.28	38	.03
18	.36	---	.06	.04	---	.00	.41	---	.07
19	.24	---	.03	.04	87	.01	.20	---	.03
20	.17	---	.02	.03	72	.01	.14	---	.02
21	.12	---	.01	.02	65	.00	.07	---	.00
22	.10	---	.01	.02	51	.00	.04	---	.00
23	.21	97	.06	.02	---	.00	.02	---	.00
24	.24	67	.04	.02	38	.00	.00	---	.00
25	.17	81	.04	.07	42	.01	.00	---	.00
26	.12	71	.02	.01	64	.00	.00	---	.00
27	.10	73	.02	.01	32	.00	.00	---	.00
28	.10	69	.02	.02	31	.00	.00	---	.00
29	.07	70	.01	.05	33	.00	.00	---	.00
30	.05	62	.01	.07	39	.01	.00	---	.00
31	---	---	---	.07	55	.01	---	---	---
TOTAL	9.93	---	1.84	1.78	---	0.23	4.52	---	0.60
		JULY			AUGUST			SEPTEMBER	
1	.00		.00	.00	---	.00	.02	12	.00
2	.00		.00	.00	---	.00	.02	12	.00
3	.00		.00	.00	---	.00	.00	10	.00
4	.00		.00	.00	---	.00	.00	8	.00
5	.00		.00	.00	---	.00	.00	---	.00
6	.00		.00	.00	---	.00	.00	---	.00
7	.00		.00	.00	---	.00	.00	---	.00
8	.00		.00	.00	---	.00	.00	---	.00
9	.00		.00	.00	---	.00	.00	---	.00
10	.00		.00	.00	---	.00	.00	---	.00
11	.00		.00	.00	---	.00	.00	---	.00
12	.00		.00	.00	---	.00	.00	---	.00
13	.00		.00	.00	---	.00	.00	---	.00
14	.00		.00	.00	---	.00	.00	---	.00
15	.00		.00	.00	---	.00	.00	---	.00
16	.00		.00	.00	---	.00	.00	8	.00
17	.00		.00	.00	---	.00	.03	8	.00
18	.00		.00	.00	---	.00	.03	5	.00
19	.00		.00	.00	---	.00	.02	6	.00
20	.00		.00	.02	67	.00	.00	8	.00
21	.00		.00	.03	10	.00	.00	5	.00
22	.00		.00	.00	9	.00	.00	3	.00
23	.00		.00	.00	---	.00	.00	6	.00
24	.00		.00	.00	---	.00	.02	9	.00
25	.00		.00	.00	---	.00	.03	5	.00
26	.00		.00	.00	---	.00	.02	5	.00
27	.00		.00	.00	---	.00	.01	---	.00
28	.00		.00	.00	---	.00	.01	---	.00
29	.00		.00	.00	---	.00	.01	---	.00
30	.00		.00	.01	13	.00	.00	---	.00
31	.00		.00	.05	18	.00	---	---	---
TOTAL	0.00		0.00	0.11	---	0.00	0.22	---	0.00
YEAR	115.12		36.57						

06425900 CABALLO CREEK AT MOUTH, NEAR PINEY, WY

LOCATION.--Lat 44°04'48", long 105°15'59", in NW¼NE¼SE¼ sec.4, T.47 N., R.70 W., Campbell County, Hydrologic Unit 10120201, on left bank 0.1 mi (0.2 km) downstream from bridge on county road, 0.7 mi (1.1 km) southwest of Piney (discontinued post office), 1.3 mi (2.1 km) upstream from mouth, and 18 mi (29 km) southeast of Gillette.

DRAINAGE AREA.--260 mi² (673 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Altitude of gage is 4,370 ft (1,332 km) from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. Numerous small reservoirs above station. Flow occasionally affected by contributions from mine dewatering.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,170 ft³/s (61.5 m³/s) May 19, 1978, gage height, 8.66 ft (2.640 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 129 ft³/s (3.65 m³/s) July 26, gage height, 4.44 ft (1.353 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.23	.00	.00	.00	.10	.46	.12	.49	.00	.00	.00
2	.00	21	.00	.00	.00	.20	.65	.32	.10	.00	.00	.00
3	.00	1.7	.00	.00	.00	.20	.58	.36	.08	.00	.00	.00
4	.00	1.4	.01	.00	.00	.13	.36	.28	.04	.00	.00	.00
5	.00	1.2	.02	.00	.00	.05	.20	.36	.79	.00	.00	.00
6	.00	.78	.06	.00	.00	.05	.10	.32	.11	.00	.00	.00
7	.00	.96	.10	.00	.00	.05	.11	.28	.08	.00	.00	.00
8	.00	1.2	.20	.00	.00	.05	.04	.21	.04	.00	.00	.00
9	.00	1.2	.11	.00	.00	.10	.01	.10	.00	.00	.00	.00
10	.00	1.3	.14	.00	.00	.15	.00	.13	.00	.00	.00	.00
11	.00	1.3	.05	.00	.00	.25	.01	.46	.00	.00	.00	.00
12	.00	1.1	.01	.00	.00	.23	.11	.25	.00	.00	.00	.00
13	.00	.66	.00	.01	.00	.20	.21	.23	.00	.00	.00	.00
14	.00	.44	.01	.04	.00	.30	.28	.16	.00	.00	.00	.00
15	.00	.30	.04	.04	.00	.50	.32	.08	.80	.00	.12	.00
16	.00	.20	.00	.02	.00	.40	.36	.03	.12	.00	.12	.00
17	.00	.15	.00	.01	.00	.45	.23	.01	.03	.00	.00	.00
18	.00	.15	.00	.00	1.0	.50	.12	.00	.01	.00	.00	.00
19	.00	.09	.00	.00	5.0	.30	.16	.00	.00	.00	.00	.00
20	.00	.06	.00	.00	3.0	.25	.25	.00	.25	.00	13	.00
21	.00	.06	.00	.00	1.5	.30	.32	.00	.02	.00	.28	.00
22	.00	.01	.00	.00	1.2	.50	.28	.00	.00	.00	.04	.00
23	.00	.00	.00	.00	1.0	.50	.21	.00	.00	.00	.00	.00
24	.00	.05	.00	.00	.70	.46	.21	.00	.00	.00	.00	.00
25	.00	.04	.00	.00	.60	.35	.12	.00	.00	.00	.00	.00
26	.00	.04	.00	.00	.50	.38	.23	.00	.00	12	.00	.00
27	.00	.01	.01	.00	.40	.40	.25	.00	.00	1.0	.00	.00
28	.00	.00	.02	.00	.30	.40	.21	.00	.00	.02	.00	.00
29	.00	.00	.02	.00	.20	.40	.08	.00	.00	.00	.00	.00
30	.10	.00	.02	.00	---	.51	.04	.00	.00	.00	.05	.00
31	.31	---	.00	.00	---	.58	---	.00	---	.00	.20	---
TOTAL	.41	35.63	.82	.12	15.40	9.24	6.51	3.70	2.96	13.02	13.81	.00
MEAN	.013	1.19	.026	.004	.53	.30	.22	.12	.099	.42	.45	.000
MAX	.31	21	.20	.04	5.0	.58	.65	.46	.80	12	13	.00
MIN	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00
AC-FT	.8	71	1.6	.2	31	18	13	7.3	5.9	26	27	.00

CAL YR 1979 TOTAL 630.89 MEAN 1.73 MAX 40 MIN .00 AC-FT 1250
WTR YR 1980 TOTAL 101.62 MEAN .28 MAX 21 MIN .00 AC-FT 202

06425900 CABALLO CREEK AT MOUTH, NEAR PINEY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
NOV 08...	1540	1.2	2730	8.3	1.5	11.7	98	K8	160	990
MAR 18...	1110	.50	2785	7.9	.0	10.8	86	K1	25	1400
APR 08...	1415	.05	3353	8.1	9.5	12.0	120	K1	K1	1500
MAY 13...	0840	.24	3750	8.3	5.5	10.7	100	46	98	1300
JUN 17...	1600	.03	740	8.0	24.5	7.6	104	1530	1760	270

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
NOV 08...	660	200	120	300	4.1	25	400	0	330	1200
MAR 18...	1100	280	160	230	3.0	19	330	0	270	1400
APR 08...	1200	280	190	300	3.4	23	360	0	300	1700
MAY 13...	950	240	170	370	4.5	26	420	0	340	1700
JUN 17...	160	61	28	47	1.4	12	130	0	100	260

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
NOV 08...	30	.6	5.8	2220	2080	2.83	6.74	1.6	.27	.230
MAR 18...	67	.4	5.0	2460	2330	3.17	3.15	.01	.00	.060
APR 08...	64	.5	1.4	3040	2740	E3.73	.37	.01	.03	.100
MAY 13...	49	.6	4.1	2990	2770	3.77	1.80	.03	.03	.060
JUN 17...	7.7	.4	4.8	536	486	.66	.04	.01	.02	.100

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHOPHOSPHATE TOTAL (MG/L AS PO4)	PHOSPHORUS, TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHOPHOSPHATE TOTAL (MG/L AS P)
NOV 08...	.28	.77	1.0	2.6	12	.040	--	.12	.000	--
MAR 18...	.07	1.5	1.6	1.6	7.1	.050	.15	.15	.020	.050
APR 08...	.12	.76	.86	.87	3.9	.040	--	.12	.020	--
MAY 13...	.07	.87	.93	.96	4.3	.100	--	.31	.020	--
JUN 17...	.12	1.2	1.3	1.3	5.8	.090	--	.28	.020	--

06425900 CABALLO CREEK AT MOUTH, NEAR PINEY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	PHYTO-PLANK-TON, TOTAL (CELLS PER ML)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2)
NOV 08...	14	--	--	--	9200	--	--	--	--	--
MAR 18...	15	.8	.00	1	1100	.000	.000	.00	.030	.000
APR 08...	16	.2	--	1	8800	--	--	--	--	--
MAY 13...	15	.8	--	3	14000	--	--	--	--	--
JUN 17...	21	.8	.00	7	3400	--	--	--	--	--

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BARIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS BA)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)
NOV 08...	1540	--	--	--	--	--	--	--	--	--	--
MAR 18...	1110	0	0	0	1	2	100	60	40	90	0
APR 08...	1415	--	--	--	--	--	--	--	--	--	--
MAY 13...	0840	--	--	--	--	--	--	--	344	--	--
JUN 17...	1600	10	2	1	1	4	100	20	80	65	0

DATE	BERYL-LIUM, SUS-PENDED RECOV. (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BERYL-LIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
NOV 08...	--	--	--	330	--	--	--	--	--	--	--
MAR 18...	0	<3	1	380	0	0	<3	0	10	0	10
APR 08...	--	--	--	460	--	--	--	--	--	--	--
MAY 13...	--	--	--	490	--	--	--	--	--	--	--
JUN 17...	--	<1	1	230	1	--	<1	1	0	0	0

DATE	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
NOV 08...	--	--	--	--	--	--	--	--	--	20	--
MAR 18...	8	4	0	<8	10	6	0	<25	16	58	3
APR 08...	--	--	--	--	--	--	--	--	--	40	--
MAY 13...	--	--	--	--	--	--	--	--	--	40	--
JUN 17...	4	0	--	<3	10	11	--	<10	16	16	6

06425900 CABALLO CREEK AT MOUTH, NEAR PINEY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
NOV 08...	--	--	--	--	--	--	--	--	--	--	--
MAR 18...	0	<25	0	70	0	70	910	0	1100	87	.0
APR 08...	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--
JUN 17...	--	<10	10	20	2	18	160	50	110	120	.1

DATE	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)
NOV 08...	--	--	--	--	--	--	--	--	--	--	--
MAR 18...	.0	.0	.10	2	0	<25	0	6	5	1	10
APR 08...	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--
JUN 17...	.0	.1	.05	2	--	<10	1	10	6	4	10

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
NOV 08...	--	--	--	--	--	--	--	--	--	--
MAR 18...	0	0	0	0	3300	<8.0	100	0	130	52
APR 08...	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--
JUN 17...	2	0	2	0	720	<6.0	50	40	9	36

06425900 CABALLO CREEK AT MOUTH, NEAR PINEY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
MAR									
18...	1110	<36	<.4	22	.7	22	.8	<24	<.3
JUN									
17...	1600	<6.7	7.7	14	4.6	14	4.5	<4.6	5.2

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM
NOV									
02...	0430	--	5.8	317	--	--	--	--	--
08...	1540	1.5	1.2	65	.21	--	--	--	--
MAR									
04...	0855	--	--	32	--	--	--	--	--
18...	1110	.0	.50	38	.05	95	98	99	100
APR									
08...	1415	9.5	.05	11	.00	--	--	--	--
MAY									
13...	0840	5.5	.24	42	.03	--	--	--	--
JUN									
05...	1700	--	--	7570	--	--	--	--	--
17...	1600	24.5	.03	135	.01	86	94	99	100

06425900 CABALLO CREEK AT MOUTH, NEAR PINEY, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	NOV 8,79	MAR 18,80	APR 8,80	MAY 13,80	JUN 17,80
TIME	1540	1110	1415	0840	1600
TOTAL CELLS/ML	9200	1100	8800	14000	3400
DIVERSITY: DIVISION	1.2	1.8	1.2	1.6	1.5
.CLASS	1.2	2.0	1.2	1.6	1.8
..ORDER	0.0	2.1	1.3	1.7	2.1
...FAMILY	0.0	2.2	1.9	1.8	2.7
....GENUS	0.0	2.2	2.0	1.9	2.8

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	330	4	540#	50	--	-	720	5	200	6
....CHLORELLA	--	-	--	-	83	1	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-	130	4
....TETRAEDRON	65	1	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	80	1	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	130	1	--	-	--	-	160	1	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	65	1	21	2	83	1	160	1	25	1
....PLATYMONAS	--	-	--	-	83	1	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	--	-	83	1	400	3	75	2
..PENNALES										
...DIATOMACEAE										
....DIATOMA	--	-	21	2	170	2	--	-	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	11	1	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	1700#	19	--	-	--	-
...NAVICULACEAE										
....NAVICULA	--	-	21	2	--	-	--	-	880#	26
...NITZSCHIACEAE										
....NITZSCHIA	--	-	11	1	2100#	23	480	4	1100#	31
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	83	1	--	-	--	-
.CHRYSOPHYCEAE	65	1	--	-	--	-	--	-	--	-
..CHRYSOMONADALES										
...CHROMULINACEAE										
....CHRYSOCOCCUS	3600#	39	--	-	--	-	--	-	--	-
...OCHROMONADACEAE										
....DINOBRYON	2900#	31	--	-	--	-	--	-	--	-
....OCHROMONAS	--	-	75	7	83	1	--	-	200	6
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	910	10	--	-	--	-	--	-	25	1
...CRYPTOMONADACEAE										
....CRYPTOMONAS	1000	11	250#	23	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	--	-	4900#	36	200	6
....COCCOCHLORIS	--	-	--	-	--	-	240	2	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	400	12
...OSCILLATORIACEAE										
....SPIRULINA	--	-	32	3	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	130	1	--	-	170	2	--	-	180	5
....PHACUS	--	-	--	-	--	-	--	-	25	1
....TRACHELOMONAS	--	-	--	-	4300#	49	6400#	47	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..GYMNODINIALES										
...GYMNODINIACEAE										
....GYMNODINIUM	--	-	96	9	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM, EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED, LESS THAN 1/2%

06425950 RAVEN CREEK NEAR MOORCROFT, WY

LOCATION.--Lat 44°10'04", long 105°05'11", in NW¼SE¼ sec.1, T.48 N., R.69 W., Campbell County, Hydrologic Unit 10120201, on left bank 1.4 mi (2.3 km) upstream from mouth, 9.3 mi (15.0 km) southwest of Moorcroft, and 9.5 mi (15.3 km) southeast of Rozet.

DRAINAGE AREA.--76 mi² (197 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,234 ft (1,290 km), from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 293 ft³/s (8.30 m³/s) Mar. 20, 1978, gage height, 5.88 ft (1.792 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--No flow for entire year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1979 TOTAL 42.57 MEAN .12 MAX 14 MIN .00 AC-FT 84
WTR YR 1980 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00

06425950 RAVEN CREEK NEAR MOORCROFT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)
SEP							
24...	1500	.00	2600	8.6	13.5	9	14.6

06426400 DONKEY CREEK NEAR MOORCROFT, WY

LOCATION.--Lat 44°16'58", long 105°03'48", in SE¼NE¼SE¼ sec.30, T.50 N., R.68 W., Crook County, Hydrologic Unit 10120201, on left bank 25 ft (8 m) upstream from county bridge, 1.2 mi (1.9 km) downstream from Well Creek, and 6.0 mi (9.7 km) west of Moorcroft.

DRAINAGE AREA.--246 mi² (637 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder and sharp-crested weir. Altitude of gage is 4,200 ft (1,280 m), from topographic map.

REMARKS.--Records poor. Numerous small reservoirs and diversions for irrigation of hay meadows above station. Flow occasionally affected by contributions from mine dewatering.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,950 ft³/s (112 m³/s) May 19, 1978, gage height, 14.60 ft (4.450 m); no flow for many days in 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 15 ft³/s (0.425 m³/s) June 15, gage height, 2.15 ft (0.655 m); maximum gage height, 2.70 ft (0.823 m) Feb. 28 (backwater from ice); no flow for many days.

DISCHARCE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.13	.24	.20	.41	2.7	2.8	.20	.53	.02	.00	.00
2	.10	.16	.24	.22	.44	3.0	3.7	.19	.38	.01	.00	.00
3	.04	.16	.24	.22	.45	2.5	3.7	.15	.19	.01	.00	.00
4	.08	.16	.33	.22	.45	2.0	3.2	.13	.13	.01	.00	.00
5	.08	.14	.26	.26	.44	1.2	3.2	.12	.13	.01	.00	.00
6	.08	.15	.53	.25	.43	1.0	3.2	.12	.16	.00	.00	.00
7	.08	.12	.55	.24	.43	1.0	3.4	.13	.16	.00	.00	.00
8	.08	.10	.48	.23	.42	1.1	3.2	.12	.14	.00	.00	.00
9	.08	.09	.50	.26	.44	1.2	2.4	.11	.13	.00	.00	.00
10	.08	.08	.50	.28	.42	1.4	1.5	2.1	.08	.00	.00	.00
11	.09	.09	.42	.28	.42	1.8	3.4	2.2	.10	.00	.00	.15
12	.09	.10	.40	.30	.40	2.8	4.0	.95	.12	.00	.00	.10
13	.10	.10	.40	.35	.40	2.2	2.4	2.6	.15	.00	.00	.10
14	.10	.10	.38	.76	.38	2.6	1.6	4.0	.28	.00	.00	.15
15	.10	.22	.37	.76	.35	9.0	1.5	3.2	7.6	.00	1.0	.15
16	.10	.19	.35	.91	.38	8.8	1.1	3.4	5.9	.00	.15	.28
17	.10	.24	.35	.42	.42	8.3	1.6	5.9	1.5	.00	.20	.35
18	.10	.24	.40	.38	.44	7.5	1.6	4.4	.38	.00	.10	.38
19	.10	.26	.40	.34	.50	6.6	1.1	3.7	.20	.00	.01	.41
20	.11	.26	.40	.31	.90	5.4	1.4	3.0	.17	.00	.24	.89
21	.14	.26	.42	.32	1.1	5.0	1.2	2.4	.12	.00	.17	.83
22	.14	.26	.42	.33	1.2	3.5	.83	1.5	.06	.00	.08	.73
23	.14	.24	.42	.40	1.3	3.1	.60	1.1	.03	.00	.02	.48
24	.14	.28	.42	.44	1.4	2.9	.42	5.5	.03	.00	.02	.40
25	.13	.33	.42	.40	2.4	2.6	.35	3.0	.04	.00	.00	.33
26	.13	.28	.46	.33	3.7	2.2	.35	.80	.03	.00	.00	.26
27	.12	.24	.44	.27	5.0	1.7	.30	.40	.03	.00	.00	.88
28	.14	.24	.38	.28	7.0	1.8	.22	.55	.02	.00	.00	.55
29	.15	.24	.33	.29	4.0	1.5	.17	1.7	.01	.00	.00	.17
30	.14	.24	.26	.31	---	1.4	.19	.87	.03	.00	.00	.17
31	.12	---	.22	.34	---	1.4	---	.66	---	.00	.00	---
TOTAL	3.24	5.70	11.93	10.90	36.02	99.2	54.63	55.20	18.83	.06	1.99	7.76
MEAN	.10	.19	.38	.35	1.24	3.20	1.82	1.78	.63	.002	.064	.26
MAX	.15	.33	.55	.91	7.0	9.0	4.0	5.9	7.6	.02	1.0	.89
MIN	.04	.08	.22	.20	.35	1.0	.17	.11	.01	.00	.00	.00
AC-FT	6.4	11	24	22	71	197	108	109	37	.1	3.9	15

CAL YR 1979 TOTAL 1428.88 MEAN 3.91 MAX 140 MIN .02 AC-FT 2830
WTR YR 1980 TOTAL 305.46 MEAN .83 MAX 9.0 MIN .00 AC-FT 606

06426400 DONKEY CREEK NEAR MOORCROFT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 02...	0845	.06	6800	8.4	10.0	6.7	69	K530	3100	1400	720	130
NOV 15...	0800	.10	5950	8.1	2.0	9.1	76	88	290	1300	660	140
DEC 04...	0915	.25	5620	7.8	1.0	7.3	60	K16	1200	1500	610	170
JAN 15...	1215	.73	4600	7.9	.0	10.5	83	K6	K2000	1300	740	220
FEB 12...	0955	.41	4610	7.7	.0	8.0	64	480	590	1400	660	250
MAR 14...	0855	2.6	2470	--	.0	11.2	90	K6	2000	620	380	120
APR 08...	0900	2.9	2400	8.1	2.0	11.8	97	K1	120	750	490	160
MAY 13...	1305	4.2	3250	8.2	12.0	10.2	111	400	820	950	470	150
JUN 17...	1120	1.7	2400	8.3	19.0	8.0	100	220	520	560	400	95
AUG 18...	1050	.06	2220	8.3	18.5	--	--	--	--	320	1	46
SEP 24...	1115	.44	3100	8.3	11.5	8.4	89	130	110	770	410	110

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT 02...	260	1100	15	16	780	22	670	3400	21	1.2	2.3	5710
NOV 15...	240	1000	12	14	820	0	680	2800	45	1.2	9.0	5080
DEC 04...	260	1000	11	49	1080	0	880	2700	27	1.1	23	4850
JAN 15...	190	700	8.3	23	730	0	600	2000	180	1.1	9.4	3880
FEB 12...	180	650	7.7	24	860	0	700	1900	200	1.5	14	3760
MAR 14...	78	350	6.9	16	--	--	--	960	150	1.0	12	1860
APR 08...	86	140	2.2	3.8	320	0	260	830	12	.2	4.4	1510
MAY 13...	140	480	6.8	18	580	0	480	1400	110	.9	4.1	2700
JUN 17...	79	350	7.3	13	200	0	160	910	120	.8	--	1730
AUG 18...	50	430	10	10	--	--	320	820	18	.8	2.2	--
SEP 24...	120	470	7.4	16	440	0	360	1400	50	.8	2.4	2430

06426400 DONKEY CREEK NEAR MOORCROFT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 02...	5340	7.26	.87	.01	--	.040	.05	1.1	1.1	1.1	4.9	.110
NOV 15...	4650	6.32	1.26	.03	.00	.120	.15	.66	.78	.81	3.6	.080
DEC 04...	4760	6.47	3.21	.02	.02	.090	.11	1.0	1.1	1.1	5.0	.030
JAN 15...	3690	5.02	7.27	.24	.28	1.400	1.7	1.6	3.0	3.2	14	.330
FEB 12...	3650	4.96	4.04	.73	.72	4.100	5.0	.00	4.0	4.7	21	.060
MAR 14...	--	2.53	13.1	.30	.30	.360	.44	1.2	1.6	1.9	8.4	.220
APR 08...	1390	1.89	10.9	.02	.04	.080	.10	.48	.56	.58	2.6	.040
MAY 13...	2590	3.52	29.4	.04	.03	.060	.07	2.3	2.4	2.4	11	.090
JUN 17...	--	2.35	7.94	.02	.02	.160	.19	1.9	2.1	2.1	9.4	.010
AUG 18...	1580	2.15	.26	--	3.0	--	--	--	--	--	--	.210
SEP 24...	2390	3.25	2.84	.00	.00	.000	.00	2.3	2.3	2.3	10	.200

DATE	PHOSPHORUS, TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	PHYTOPLANKTON, TOTAL (CELLS PER ML)	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	BIOMASS CHLOROPHYLL RATIO PERIPHYTON (UNITS)	CHLOR-A PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2)	CHLOR-B PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2)
OCT 02...	.34	.030	12	1.5	--	--	14000	--	--	--	--	--
NOV 15...	.25	.010	17	.5	--	--	14000	3.39	3.70	76.4	4.06	.590
DEC 04...	.09	.010	32	.5	.00	3	1900	--	--	--	--	--
JAN 15...	1.0	.010	28	.3	--	12	760	--	--	--	--	--
FEB 12...	.18	.020	110	.6	--	1	1400	--	--	--	--	--
MAR 14...	.67	.100	19	.9	.00	2	15000	--	--	--	--	--
APR 08...	.12	.010	7.9	.2	--	1	150000	--	--	--	--	--
MAY 13...	.28	.020	15	2.6	--	0	28000	--	--	--	--	--
JUN 17...	.03	.020	18	--	.00	9	12000	--	--	--	--	--
AUG 18...	.64	--	--	--	--	--	--	--	--	--	--	--
SEP 24...	.61	.040	18	4.6	--	20	630000	--	--	--	--	--

06426400 DONKEY CREEK NEAR MOORCROFT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BARIUM, RECOV. FM BOTTOM MATERIAL (UG/G AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)
OCT 02...	0845	0	2	--	2	370	0	--	60	500	0
NOV 15...	0800	--	--	--	--	--	--	--	--	--	--
DEC 04...	0915	--	--	--	--	--	--	--	--	--	--
JAN 15...	1215	--	--	--	--	--	--	--	--	--	--
FEB 12...	0955	--	--	--	--	--	--	--	--	--	--
MAR 14...	0855	0	1	0	1	6	200	200	40	80	0
APR 08...	0900	--	--	--	--	--	--	--	--	--	--
MAY 13...	1305	--	--	--	--	--	--	--	--	--	--
JUN 17...	1120	0	2	1	1	13	100	40	60	1500	0
SEP 24...	1115	--	--	--	--	--	--	--	--	--	--

DATE	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BERYLLIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)
OCT 02...	--	<1	0	310	3	--	<1	0	10	--	0
NOV 15...	--	--	--	320	--	--	--	--	--	--	--
DEC 04...	--	--	--	290	--	--	--	--	--	--	--
JAN 15...	--	--	--	640	--	--	--	--	--	--	--
FEB 12...	--	--	--	760	--	--	--	--	--	--	--
MAR 14...	0	<3	0	530	1	0	<3	0	10	10	0
APR 08...	--	--	--	160	--	--	--	--	--	--	--
MAY 13...	--	--	--	520	--	--	--	--	--	--	--
JUN 17...	--	<3	1	450	1	--	<3	1	0	0	0
SEP 24...	--	--	--	340	--	--	--	--	--	--	--

06426400 DONKEY CREEK NEAR MOORCROFT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
OCT 02...	3	0	--	<3	0	2	--	<10	2	30	39
NOV 15...	--	--	--	--	--	--	--	--	--	20	--
DEC 04...	--	--	--	--	--	--	--	--	--	40	--
JAN 15...	--	--	--	--	--	--	--	--	--	30	--
FEB 12...	--	--	--	--	--	--	--	--	--	50	--
MAR 14...	9	2	0	<8	20	6	0	<25	14	40	2
APR 08...	--	--	--	--	--	--	--	--	--	<10	--
MAY 13...	--	--	--	--	--	--	--	--	--	40	--
JUN 17...	8	0	--	<8	10	4	--	<10	16	34	2
SEP 24...	--	--	--	--	--	--	--	--	--	40	--

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
OCT 02...	--	<10	0	70	--	85	400	--	390	1700	1.1
NOV 15...	--	--	--	--	--	--	--	--	--	--	--
DEC 04...	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	--	--	--	--	--	--	--	--	--	--	--
FEB 12...	--	--	--	--	--	--	--	--	--	--	--
MAR 14...	2	0	0	40	0	50	230	20	210	290	.4
APR 08...	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--	--
JUN 17...	2	0	10	30	0	40	240	60	180	230	.0
SEP 24...	--	--	--	--	--	--	--	--	--	--	--

06426400 DONKEY CREEK NEAR MOORCROFT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, SUS-PENDED RECOV. (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	MOLYB-DENUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)
OCT											
02...	--	.0	--	5	--	<10	0	5	--	3	5
NOV											
15...	--	--	--	--	--	--	--	--	--	--	--
DEC											
04...	--	--	--	--	--	--	--	--	--	--	--
JAN											
15...	--	--	--	--	--	--	--	--	--	--	--
FEB											
12...	--	--	--	--	--	--	--	--	--	--	--
MAR											
14...	.0	.5	.02	12	0	<25	0	5	2	3	10
APR											
08...	--	--	--	--	--	--	--	--	--	--	--
MAY											
13...	--	--	--	--	--	--	--	--	--	--	--
JUN											
17...	.0	.0	.01	10	0	10	1	8	5	3	10
SEP											
24...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT									
02...	0845	<91	1.7	35	9.5	36	9.3	<62	1.2
MAR									
14...	0855	<31	.8	14	1.0	14	1.1	<21	.5
JUN									
17...	1120	<23	2.2	14	2.2	14	2.1	<16	1.5

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM
OCT										
02...	0845	10.0	.06	231	.04	--	--	--	--	--
NOV										
15...	0800	2.0	.10	193	.05	--	--	--	--	--
DEC										
04...	0915	1.0	.25	172	.12	--	--	--	--	--
JAN										
15...	1215	.0	.73	189	.37	--	--	--	--	--
FEB										
12...	0955	.0	.41	182	.20	--	--	--	--	--
MAR										
04...	1135	--	--	50	--	--	--	--	--	--
14...	0855	.0	2.6	24	.17	--	--	--	--	--
APR										
08...	0900	2.0	2.9	44	.34	--	--	--	--	--
MAY										
13...	1305	12.0	4.2	125	1.4	--	--	--	--	--
27...	1540	--	--	153	--	--	--	--	--	--
JUN										
17...	1120	19.0	1.7	65	.30	26	29	32	34	35
SEP										
24...	1115	11.5	.44	40	.05	--	--	--	--	--

06426400 DONKEY CREEK NEAR MOORCROFT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
OCT										
02...	--	--	--	--	--	--	--	--	--	--
NOV										
15...	--	--	--	--	--	--	--	--	--	--
DEC										
04...	--	--	--	--	--	--	--	--	--	--
JAN										
15...	--	--	--	--	--	--	--	--	--	--
FEB										
12...	--	--	--	--	--	--	--	--	--	--
MAR										
04...	--	--	--	--	--	--	--	--	--	--
14...	36	56	82	89	92	96	100	--	--	--
APR										
08...	--	--	--	--	--	--	--	--	--	--
MAY										
13...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
JUN										
17...	--	--	--	--	--	46	65	86	95	100
SEP										
24...	--	--	--	--	--	--	--	--	--	--

06426400 DONKEY CREEK NEAR MOORCROFT, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	OCT 2,79	NOV 15,79	DEC 4,79	JAN 15,80	FEB 12,80
TIME	0845	0800	0915	1215	0955
TOTAL CELLS/ML	14000	14000	1900	760	1400
DIVERSITY: DIVISION	1.1	1.2	1.4	1.6	0.9
.CLASS	1.1	1.4	2.1	1.6	0.9
..ORDER	1.1	1.6	2.4	1.9	1.5
...FAMILY	1.2	1.7	2.4	2.1	1.7
....GENUS	1.2	1.9	2.5	2.5	1.9

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHLOROCOCCACEAE										
....CHLOROCOCCUM	--	-	--	-	--	-	7	1	--	-
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	--	-	--	-
...MICRACTINIACEAE										
....MICRACTINIUM	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	5100#	36	820	6	130	7	130#	17	14	1
....CHLORELLA	--	-	--	-	--	-	--	-	--	-
....CHODATELLA	--	-	140	1	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	55	3	7	1	110	8
....OOCYSTIS	--	-	140	1	--	-	--	-	86	6
....SELENASTRUM	--	-	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	--	-
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	--	-	--	-	57	4
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	1800	13	--	-	7	1	72	5
...PHACOTACEAE										
....PTEROMONAS	--	-	--	-	18	1	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	130	1	140	1	150	8	93	12	930#	64
....MELOSIRA	--	-	--	-	--	-	--	-	--	-
....THALASSIOSIRA	--	-	--	-	--	-	--	-	--	-
..PENNALES										
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	--	-	14	1
...NAVICULACEAE										
....NAVICULA	--	-	270	2	--	-	36	5	--	-
....PLEUROSIGMA	250	2	--	-	--	-	--	-	--	-
....STAURONEIS	--	-	--	-	--	-	--	-	14	1
...NITZSCHIACEAE										
....NITZSCHIA	8300#	59	550	4	400#	21	65	8	130	9
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...CHROMULINACEAE										
....CHRYSOCOCCUS	--	-	--	-	730#	38	--	-	--	-
...MALLOMONADACEAE										
....MALLOMONAS	--	-	820	6	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	--	-	130	7	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-
....COCCOCHLORIS	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	--	-
....ANABAENOPSIS	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06426400 DONKEY CREEK NEAR MOORCROFT, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	OCT 2,79		NOV 15,79		DEC 4,79		JAN 15,80		FEB 12,80	
TIME	0845		0800		0915		1215		0955	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	250	2	140	1	18	1	50	7	--	-
....PHACUS	--	-	140	1	--	-	--	-	--	-
....TRACHELOMONAS	--	-	9100#	65	290#	15	340#	44	14	1
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..GYMNODINIALES										
...GYMNODINIACEAE										
....GYMNODINIUM	--	-	--	-	--	-	29	4	--	-
..PERIDINIALES										
...GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06426400 DONKEY CREEK NEAR MOORCROFT, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE TIME	MAR 14,80 0855	APR 8,80 0900	MAY 13,80 1305	JUN 17,80 1120	SEP 24,80 1115
TOTAL CELLS/ML	15000	150000	28000	12000	630000
DIVERSITY: DIVISION	0.4	0.9	1.9	1.6	0.2
.CLASS	0.4	0.9	1.9	1.6	0.2
..ORDER	0.4	0.9	2.2	2.2	0.2
...FAMILY	0.4	0.9	2.7	2.7	0.5
....GENUS	0.4	1.2	3.2	3.0	0.5

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHLOROCOCCACEAE										
....CHLOROCOCCUM	--	-	--	-	--	-	--	-	--	-
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	750	6	--	-
...MICRACTINIACEAE										
....MICRACTINIUM	--	-	--	-	1200	4	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	2000	1	2900	10	300	2	*	0
....CHLORELLA	--	-	110000#	76	360	1	75	1	--	-
....CHODATELLA	--	-	--	-	--	-	75	1	--	-
....DICTYOSPHAERIUM	--	-	--	-	360	1	300	2	*	0
....KIRCHNERIELLA	--	-	4500	3	--	-	--	-	--	-
....OOCYSTIS	--	-	*	0	--	-	--	-	*	0
....SELENASTRUM	--	-	--	-	360	1	450	4	*	0
....TREUBARIA	--	-	--	-	*	0	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	1900	7	--	-	--	-
....CRUCIGENIA	--	-	--	-	480	2	--	-	*	0
....SCENEDESMUS	--	-	--	-	970	3	1500	12	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	400	3	--	-	360	1	600	5	*	0
...PHACOTACEAE										
....PTEROMONAS	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	270	2	--	-	4200#	15	5000#	40	4700	1
....MELOSIRA	--	-	--	-	--	-	300	2	--	-
....THALASSIOSIRA	--	-	3500	2	--	-	--	-	--	-
..PENNALES										
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	--	-	75	1	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	--	-	990	1	*	0	150	1	*	0
....PLEUROSIGMA	--	-	--	-	--	-	--	-	--	-
....STAURONEIS	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	--	-	--	-	*	0	680	5	*	0
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...CHROMULINACEAE										
....CHRYSOCOCCUS	--	-	--	-	--	-	--	-	--	-
...MALLOMONADACEAE										
....MALLOMONAS	--	-	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	15000#	95	--	-	8500#	30	150	1	--	-
....COCCOCHLORIS	--	-	--	-	970	3	--	-	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	3200	1
....ANABAENOPSIS	--	-	--	-	--	-	--	-	30000	5
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	24000#	16	1700	6	1400	11	580000#	93

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06426400 DONKEY CREEK NEAR MOORCROFT, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE TIME	MAR 14,80 0855		APR 8,80 0900		MAY 13,80 1305		JUN 17,80 1120		SEP 24,80 1115	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	530	4	*	0
....PHACUS	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	130	1	*	0	3500	12	75	1	*	0
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..GYMNODINIALES										
...GYMNODINIACEAE										
....GYMNODINIUM	--	-	--	-	--	-	--	-	--	-
..PERIDINIALES										
...GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	--	-	--	-	*	0

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY

LOCATION.--Lat 44°17'44", long 104°58'35", in SE¼SW¼ sec.24, T.50 N., R.68 W., Crook County, Hydrologic Unit 10120201, on left bank 150 ft (46 m) upstream from Trail Creek, 1.9 mi (3.1 km) downstream from Donkey Creek, and 2.6 mi (4.2 km) northwest of Moorcroft.

DRAINAGE AREA.--1,670 mi^2 (4,325 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1943 to September 1970, October 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,119.2 ft (1,255.53 m), National Geodetic Vertical Datum of 1929 (Water and Power Resources Service bench mark). Prior to Mar. 28, 1947, nonrecording gage, and Mar. 28, 1947, to Jan. 16, 1951, water-stage recorder at site 12 mi (19 km) downstream at different datum. Jan. 17, 1951, to September 1970, at site 50 ft (15 m) downstream at datum 0.8 ft (0.24 m) lower.

REMARKS.--Records fair except those for the winter period, which are poor. Numerous small stockwater and soil conservation reservoirs above station. Diversions for irrigation of about 660 acres (267 hm^2) above station.

AVERAGE DISCHARGE.--32 years, 23.5 ft^3/s (0.666 m^3/s), 17,030 acre-ft/yr (21.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,300 ft^3/s (433 m^3/s) May 19, 1978, gage height, 14.60 ft (4.450 m), from floodmark in gage shelter, from rating curve extended above 11,000 ft^3/s (312 m^3/s); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 119 ft^3/s (3.37 m^3/s) Feb. 22, gage height, 4.60 ft (1.402 m) backwater from ice, no peak above base of 360 ft^3/s (10.2 m^3/s); minimum daily, 0.02 ft^3/s (0.001 m^3/s) Aug. 6-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	1.0	1.5	1.7	1.3	20	4.4	1.6	2.5	.58	.19	.24
2	.09	1.1	1.6	1.6	1.5	16	5.8	2.0	15	.50	.19	2.5
3	.09	1.0	1.7	1.5	1.6	18	6.5	2.2	48	.50	.09	3.6
4	.05	5.1	1.7	1.5	1.7	16	6.7	2.2	11	.50	.09	1.7
5	.05	5.6	1.7	1.6	1.7	13	6.5	2.0	4.6	.43	.05	1.0
6	.05	3.8	1.7	1.3	1.6	13	6.3	1.6	2.8	.43	.02	.58
7	.05	3.0	1.9	1.1	1.5	14	6.5	1.1	1.7	.36	.02	.43
8	.05	2.5	1.9	1.0	1.4	14	6.3	1.2	1.9	.43	.02	.30
9	.05	2.3	1.9	1.1	1.4	15	5.6	1.6	2.6	.36	.02	.09
10	.05	2.0	2.2	1.2	1.4	17	5.0	2.2	1.0	.43	.02	.14
11	.05	2.2	1.9	1.3	1.3	19	4.6	2.0	1.6	.36	.02	.24
12	.05	2.5	1.7	1.4	1.3	22	5.2	3.3	1.4	.36	.02	2.6
13	.09	2.5	1.8	1.8	1.2	27	6.1	4.0	1.4	.30	.02	4.2
14	.05	2.5	2.0	2.3	1.1	34	5.2	3.1	1.9	.19	.02	1.5
15	.05	2.5	2.0	2.5	1.0	46	4.0	4.2	10	.24	.14	.84
16	.05	2.3	1.8	2.8	1.0	38	3.8	3.8	20	.19	.19	.66
17	.09	2.3	1.9	2.3	1.1	51	3.5	3.5	15	.19	19	.43
18	.09	2.2	2.2	2.0	1.2	43	3.1	3.0	7.9	.24	11	.24
19	.09	2.0	2.4	1.8	1.4	35	3.8	2.2	4.0	.19	4.4	.14
20	.09	1.9	2.6	1.6	1.9	28	3.6	1.6	3.0	.19	5.8	.14
21	.14	1.8	2.5	1.5	35	24	2.6	1.5	3.1	.19	6.3	.14
22	.14	1.7	2.2	1.6	78	19	1.6	1.4	2.6	.19	71	.09
23	.14	1.7	2.0	1.7	85	16	1.5	1.5	2.3	.19	15	.72
24	.14	1.7	1.9	1.9	62	13	1.2	1.5	2.6	.14	6.3	1.4
25	.50	1.7	2.0	1.8	69	10	1.2	4.4	1.9	.09	3.3	.84
26	.93	1.6	1.9	1.5	59	8.2	1.4	3.1	1.5	.14	1.7	.50
27	.84	1.6	1.7	1.2	44	6.6	1.4	1.7	1.1	.19	1.1	.36
28	.66	1.5	1.7	1.0	36	5.0	1.7	1.0	.84	.14	.66	.36
29	.58	1.4	1.6	1.0	32	5.2	1.4	1.1	.75	.14	.43	.24
30	.66	1.5	1.6	1.1	---	4.8	1.5	1.0	.58	.14	.30	.24
31	.84	---	1.7	1.2	---	4.4	---	3.8	---	.19	.24	---
TOTAL	6.89	66.5	58.9	48.9	527.6	615.2	118.0	70.4	174.57	8.71	147.65	26.46
MEAN	.22	2.22	1.90	1.58	18.2	19.8	3.93	2.27	5.82	.28	4.76	.88
MAX	.93	5.6	2.6	2.8	85	51	6.7	4.4	48	.58	71	4.2
MIN	.05	1.0	1.5	1.0	1.0	4.4	1.2	1.0	.58	.09	.02	.09
AC-FT	14	132	117	97	1050	1220	234	140	346	17	293	52

CAL YR 1979 TOTAL 7493.18 MEAN 20.5 MAX 355 MIN .05 AC-FT 14860
WTR YR 1980 TOTAL 1869.78 MEAN 5.11 MAX 85 MIN .02 AC-FT 3710

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-57, 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
OCT										
11...	1310	.05	2700	8.3	12.0	--	9.9	210	640	210
NOV										
07...	1340	3.0	3500	8.3	3.0	--	11.2	K12	880	520
DEC										
05...	1240	1.7	5000	8.0	1.0	--	12.8	110	1200	700
JAN										
09...	1130	1.1	5500	7.7	.0	--	10.2	120	1400	660
FEB										
21...	1015	E1.5	4700	8.2	.0	--	8.5	--	1000	590
MAR										
19...	1500	30	1380	--	.0	--	11.0	85	320	200
APR										
13...	1700	6.1	3100	8.5	10.5	15	15.4	--	--	--
23...	1345	2.0	2930	--	12.0	--	7.8	56	800	460
MAY										
14...	1830	3.0	5000	8.1	15.5	35	9.1	--	--	--
21...	1130	1.6	3550	--	21.0	--	6.4	K530	870	450
JUN										
17...	1600	12	2340	--	23.5	80	7.8	--	--	--
19...	1130	3.9	2440	--	21.5	--	6.2	K590	550	290
JUL										
24...	0800	.12	2940	8.0	20.0	--	3.5	--	710	250
AUG										
25...	0900	3.3	680	--	15.0	1100	5.3	--	--	--
25...	1515	2.6	630	7.9	18.5	--	5.8	K1300	140	44
SEP										
23...	1045	.10	2280	7.9	11.0	--	8.0	K170	400	100
25...	1600	.10	1900	8.3	10.5	65	10.4	--	--	--

E-Estimate.
K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
OCT										
11...	120	82	430	7.4	13	430	1100	34	.6	7.7
NOV										
07...	170	110	510	7.5	13	360	1300	150	.4	4.6
DEC										
05...	180	170	680	8.7	13	450	2000	130	.0	6.2
JAN										
09...	250	180	740	8.7	18	710	1800	190	.8	10
FEB										
21...	200	130	480	6.5	15	440	1400	130	.6	7.9
MAR										
19...	67	38	160	3.9	8.1	120	440	55	.5	7.0
APR										
13...	--	--	--	--	--	--	--	--	--	--
23...	160	98	410	6.3	13	340	1200	96	.6	4.6
MAY										
14...	--	--	--	--	--	--	--	--	--	--
21...	150	120	540	8.0	16	420	1400	120	.8	4.9
JUN										
17...	--	--	--	--	--	--	--	--	--	--
19...	110	67	330	6.1	13	260	790	130	.6	5.8
JUL										
24...	150	81	450	7.4	12	460	1200	30	.7	7.7
AUG										
25...	--	--	--	--	--	--	--	--	--	--
25...	37	12	71	2.6	7.6	98	170	17	.5	4.2
SEP										
23...	79	50	350	7.6	9.0	300	720	64	.7	3.3
25...	--	--	--	--	--	--	--	--	--	--

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)
OCT										
11...	2050	2.79	.28	.06	.070	.08	.74	.81	.87	3.9
NOV										
07...	2470	3.36	20.0	.04	.030	.04	.70	.73	.77	3.4
DEC										
05...	3450	4.69	15.8	.04	.220	.27	2.0	2.2	2.2	9.9
JAN										
09...	3620	4.92	10.8	.20	.720	.87	1.5	2.2	2.4	11
FEB										
21...	2630	3.58	10.7	.20	1.300	1.6	1.0	2.3	2.5	11
MAR										
19...	848	1.15	68.7	.23	.170	.21	1.5	1.7	1.9	8.5
APR										
13...	--	--	--	--	--	--	--	--	--	--
23...	2190	2.98	11.8	.00	.010	.01	1.5	1.5	1.5	6.6
MAY										
14...	--	--	--	--	--	--	--	--	--	--
21...	2600	3.54	11.2	.01	.010	.01	1.7	1.7	1.7	7.6
JUN										
17...	--	--	--	--	--	--	--	--	--	--
19...	1600	2.18	16.8	.03	.030	.04	1.6	1.6	1.6	7.2
JUL										
24...	2210	3.01	.72	.00	.000	.00	1.3	1.3	1.3	5.8
AUG										
25...	--	--	--	--	--	--	--	--	--	--
25...	379	.52	2.66	.14	.150	.18	3.6	3.7	3.8	17
SEP										
23...	1460	1.99	.39	.00	.040	.05	1.6	1.6	1.6	7.1
25...	--	--	--	--	--	--	--	--	--	--

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)	IN-VERTE-BRATES, BENTHIC WET WT. (G/SQ METER)	IN-VERTE-BRATES, BENTHIC TOTAL (ORG/SQ METER)
OCT									
11...	.000	.00	7.5	.8	--	--	--	--	--
NOV									
07...	.050	.15	--	--	--	--	--	--	--
DEC									
05...	.310	.95	--	--	--	--	--	--	--
JAN									
09...	.410	1.3	--	--	--	--	--	--	--
FEB									
21...	.430	1.3	--	--	--	--	6	--	--
MAR									
19...	.180	.55	10	1.5	--	--	2	--	--
APR									
13...	--	--	--	--	--	--	--	--	--
23...	.130	.40	--	--	--	.00	3	--	--
MAY									
14...	--	--	--	--	--	--	--	--	--
21...	.060	.18	--	--	--	--	1	--	--
JUN									
17...	--	--	6.7	2.0	6.9	--	--	--	--
19...	.150	.46	--	--	--	--	12	--	--
JUL									
24...	.110	.34	--	--	--	.00	1	--	--
AUG									
25...	--	--	--	--	--	--	--	1.2	250
25...	.410	1.3	--	--	--	.01	4	--	--
SEP									
23...	.070	.21	--	--	--	--	0	--	--
25...	--	--	--	--	--	--	--	--	--

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT 11...	1310	600	590	10	1	1	0	0	0	0	200	1
NOV 07...	1340	--	--	--	--	--	--	--	--	--	180	--
DEC 05...	1240	--	--	--	--	--	--	--	--	--	290	--
JAN 09...	1130	--	--	--	--	--	--	--	--	--	280	--
FEB 21...	1015	--	--	--	--	--	--	--	--	--	280	--
MAR 19...	1500	2700	2700	30	2	1	1	0	0	<1	270	0
APR 23...	1345	--	--	--	--	--	--	--	--	--	280	--
MAY 21...	1130	--	--	--	--	--	--	--	--	--	450	--
JUN 19...	1130	--	--	--	--	--	--	--	--	--	250	--
JUL 24...	0800	--	--	--	--	--	--	--	--	--	220	--
AUG 25...	1515	--	--	--	--	--	--	--	--	--	90	--
SEP 23...	1045	--	--	--	--	--	--	--	--	--	300	--

DATE	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
OCT 11...	1	0	10	0	10	3	2	1	780	--	20	2
NOV 07...	--	--	--	--	--	--	--	--	--	--	90	--
DEC 05...	--	--	--	--	--	--	--	--	--	--	180	--
JAN 09...	--	--	--	--	--	--	--	--	--	--	50	--
FEB 21...	--	--	--	--	--	--	--	--	--	--	60	--
MAR 19...	0	<1	10	10	0	13	0	23	4700	4400	280	8
APR 23...	--	--	--	--	--	--	--	--	--	--	40	--
MAY 21...	--	--	--	--	--	--	--	--	--	--	30	--
JUN 19...	--	--	--	--	--	--	--	--	--	--	20	--
JUL 24...	--	--	--	--	--	--	--	--	--	--	30	--
AUG 25...	--	--	--	--	--	--	--	--	--	--	560	--
SEP 23...	--	--	--	--	--	--	--	--	--	--	40	--

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)
OCT 11...	2	0	40	10	30	310	90	220	.0	.0	.0	0
NOV 07...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 09...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 21...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 19...	5	3	20	0	20	170	80	90	.0	.0	.0	2
APR 23...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 25...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 23...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 11...	0	0	3	0	4	0	0	0	<1.0	10	0	10
NOV 07...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 09...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 21...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 19...	0	<10	9	5	4	1	0	1	1.0	50	40	10
APR 23...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 19...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 25...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 23...	--	--	--	--	--	--	--	--	--	--	--	--

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 11...	1310	.00	0	.00	.0	.00	0	.00	.0
JUN 19...	1130	.34	0	.00	.0	.00	0	.00	.0
JUL 24...	0800	.00	0	.00	.0	.00	0	.00	.0
AUG 25...	1515	.00	0	.00	.0	.01	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
OCT 11...	.00	.0	.00	.0
JUN 19...	.00	.0	>.06	.0
JUL 24...	.00	.0	.00	.0
AUG 25...	.00	.0	.00	.0

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPER- ATURE, WATER (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM
OCT								
04...	0955	7.0	.04	40	.00	--	--	--
NOV								
06...	1500	3.5	3.8	38	.39	17	22	34
DEC								
13...	1010	.0	1.8	194	.94	--	--	--
JAN								
03...	1330	.0	1.5	58	.23	--	--	--
FEB								
21...	1015	.0	E1.5	10	.17	--	--	--
22...	1545	1.0	104	746	209	--	--	--
MAR								
19...	1500	.0	30	462	37	--	--	--
APR								
23...	1345	12.0	2.0	186	1.0	2	3	7
MAY								
21...	1130	21.0	1.6	238	1.0	--	--	--
JUN								
19...	1130	21.5	3.9	320	3.4	6	9	16
JUL								
24...	0800	20.0	.12	258	.08	--	--	--
AUG								
25...	1515	18.5	2.6	1330	9.3	--	--	--
SEP								
23...	1045	11.0	.10	136	.04	--	--	--

E-Estimate.

DATE	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
OCT								
04...	--	--	--	--	--	--	--	--
NOV								
06...	49	54	63	75	87	96	100	--
DEC								
13...	--	--	--	--	--	--	--	--
JAN								
03...	--	--	--	--	--	--	--	--
FEB								
21...	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--
MAR								
19...	--	--	--	--	--	--	--	--
APR								
23...	18	26	36	55	78	92	98	100
MAY								
21...	--	--	--	--	--	--	--	--
JUN								
19...	29	35	44	60	79	88	97	100
JUL								
24...	--	--	--	--	--	--	--	--
AUG								
25...	--	--	--	--	--	--	--	--
SEP								
23...	--	--	--	--	--	--	--	--

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

BENTHIC INVERTEBRATE ANALYSES

DATE	AUG 25,80
TIME	0900
TOTAL COUNT	47
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	1.7
...FAMILY	1.7
....GENUS	2.3
....GENUS-INSECTA	2.3

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..COLEOPTERA	
...ELMIDAE	
....DUBIRAPHIA	21
..DIPTERA	
...CHIRONOMIDAE	
....CRICOTOPUS	1
....CRYPTOCHIRONOMUS	2
....GLYPTOTENDIPES	1
....LIMNOCHIRONOMUS	2
....PARATANYTARSUS	11
..HEMIPTERA	
...CORIXIDAE	
....UNKNOWN GENUS	4
..TRICHOPTERA	
...HYDROPSYCHIDAE	
....CHEUMATOPSYCHE	5

06427000 KEYHOLE RESERVOIR NEAR MOORCROFT, WY

LOCATION.--Lat 44°22'55", long 104°46'45", in NW¼NW¼ sec.27, T.51 N., R.66 W., Crook County, Hydrologic Unit 10120201, at reservoir dam on Belle Fourche River 12 mi (19 km) northeast of Moorcroft.

DRAINAGE AREA.--2,000 mi^2 (5,180 km^2), approximately.

PERIOD OF RECORD.--March 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Water and Power Resources Service datum). Prior to May 15, 1958, and Oct. 1, 1968 to Mar. 13, 1970, nonrecording gages; May 15, 1958 to Sept. 30, 1968, water-stage recorder; all at present site and datum.

REMARKS.--Reservoir is formed by a zoned earthfill dam completed by the Water and Power Resources Service Oct. 25, 1952. Storage began Feb. 12, 1952. Dead storage, below elevation 4,036.0 ft (1,230.17 m), 1,170 acre-ft (1.44 hm^3). Inactive storage, between elevations 4,036.0 ft (1,230.17 m) and 4,051.0 ft (1,234.74 m), 8,310 acre-ft (10.2 hm^3). Total capacity below elevation 4,099.3 ft (1,249.47 m), crest of spillway, 199,900 acre-ft (246 hm^3). Figures given herein represent total contents. The reservoir provides flood control and water for irrigation in Wyoming and near Belle Fourche, SD.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 210,200 acre-ft (259 hm^3) May 21, 1978, elevation, 4,100.38 ft (1,249.796 m); minimum daily (since appreciable storage was attained), 6,030 acre-ft (7.43 hm^3) Mar. 8, 9, 1955, elevation, 4,046.35 ft (1,233.327 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 149,800 acre-ft (185 hm^3) Apr. 15-21, elevation, 4,093.33 ft (1,247.647 m); minimum daily, 106,000 acre-ft (131 hm^3) Sept. 30, elevation, 4,086.59 ft (1,245.593 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	4,093.07	147,800	-
Oct. 31	4,092.73	145,400	-2,400
Nov. 30	4,092.51	143,800	-1,600
Dec. 31	4,092.47	143,500	-300
CAL YR 1979	-	-	-13,200
Jan. 31	4,092.43	143,200	-300
Feb. 29	4,093.04	147,600	+4,400
Mar. 31	4,093.24	149,100	+1,500
Apr. 30	4,093.21	148,900	-200
May 31	4,092.50	143,700	-5,200
June 30	4,091.92	139,500	-4,200
July 31	4,090.25	128,200	-11,300
Aug. 31	4,086.90	107,800	-20,400
Sept. 30	4,086.59	106,000	-1,800
WTR YR 1980	-	-	-41,800

CHEYENNE RIVER BASIN

06427500 BELLE FOURCHE RIVER BELOW KEYHOLE RESERVOIR, WY

LOCATION.--Lat 44°23'18", long 104°46'12", in SE¼NE¼SW¼ sec.22, T.51 N., R.66 W., Crook County, Hydrologic Unit 10120201, on right bank 0.9 mi (1.4 km) downstream from Keyhole Dam, 1.7 mi (2.7 km) downstream from Mule Creek, 2.9 mi (4.7 km) upstream from Spring Creek, and 12 mi (19 km) northeast of Moorcroft.

DRAINAGE AREA.--2,000 mi^2 (5,180 km^2), approximately.

PERIOD OF RECORD.--April 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,020 ft (1,225 m), from topographic map. Prior to Aug. 30, 1979, at site 0.7 mi (1.1 km) upstream at different datum.

REMARKS.--Records fair. No gage-height record Jan. 7 to Feb. 19, Mar. 1-10. Flow completely regulated by Keyhole Reservoir, 0.9 mi (1.4 km) upstream, since February 1952. (See sta 06427000.) Diversions for irrigation of about 820 acres (3.32 km^2) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410 ft^3/s (39.9 m^3/s) May 23, 1978, gage height, 10.65 ft (3.246 m) at present datum; maximum gage height, 6.30 ft (1.920 m) Sept. 5, 1951, site and datum in use; minimum daily discharge since appreciable storage in Keyhole Reservoir, 0.30 ft^3/s (0.008 m^3/s) Feb. 6-20, 1960; no flow at times in 1951-52.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 458 ft^3/s (13.0 m^3/s) Aug. 16, gage height, 8.36 ft (2.548 m); maximum gage height, 8.47 ft (2.582 m) Aug. 1; minimum daily discharge, 1.6 ft^3/s (0.045 m^3/s) June 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	2.0	2.1	2.2	2.2	2.1	2.0	2.0	114	45	398	2.8
2	2.8	2.0	2.1	2.2	2.2	2.1	2.0	2.0	108	94	431	2.8
3	2.7	2.1	2.1	2.4	2.2	2.1	2.0	2.0	102	104	431	2.7
4	2.7	2.1	2.1	2.2	2.2	2.1	2.0	2.0	102	113	428	2.7
5	2.7	2.1	2.1	2.2	2.2	2.0	2.1	2.0	103	114	431	2.7
6	2.7	2.1	2.2	2.2	2.2	2.0	2.1	2.0	103	114	437	2.8
7	2.8	2.1	2.2	2.2	2.2	2.0	2.1	1.8	102	114	431	2.7
8	2.8	2.1	2.2	2.2	2.2	2.0	2.1	2.0	103	113	431	2.6
9	2.6	2.1	2.2	2.2	2.2	2.0	2.0	2.0	104	142	434	2.6
10	2.6	2.1	2.2	2.2	2.2	2.0	2.1	2.1	51	172	428	2.6
11	2.7	2.2	2.1	2.2	2.2	2.0	2.1	2.0	2.4	173	309	2.7
12	2.5	2.1	2.1	2.2	2.2	2.0	2.0	2.0	2.2	173	159	2.6
13	2.5	2.1	2.1	2.2	2.2	2.0	2.1	1.8	2.4	170	281	2.6
14	2.6	2.1	2.1	2.2	2.2	2.0	2.2	2.0	3.1	168	452	2.5
15	2.5	2.1	2.1	2.2	2.2	2.0	2.2	2.0	2.5	168	452	2.7
16	2.7	2.1	2.1	2.2	2.2	2.0	2.1	1.8	2.4	170	452	2.7
17	2.5	2.2	2.2	2.2	2.3	2.0	2.1	1.8	2.4	179	446	2.6
18	2.6	2.2	2.1	2.2	2.3	2.0	2.1	1.8	2.2	185	317	2.6
19	2.6	2.2	2.2	2.2	2.4	2.0	2.4	1.8	2.4	187	154	2.7
20	2.6	2.2	2.2	2.2	2.4	2.0	2.4	45	2.1	187	237	2.6
21	2.4	2.2	2.2	2.2	2.5	2.0	2.2	116	2.1	188	351	2.6
22	2.4	2.2	2.2	2.2	2.2	2.0	2.0	116	2.0	189	351	2.6
23	2.4	2.2	2.2	2.2	2.2	2.0	2.0	116	2.1	201	353	2.5
24	2.4	2.2	2.2	2.2	2.2	2.0	2.0	116	1.8	230	353	2.5
25	2.5	2.1	2.2	2.2	2.2	2.0	2.0	116	1.8	242	355	2.5
26	2.5	2.1	2.2	2.2	2.2	2.0	2.0	115	1.8	223	184	2.4
27	2.5	2.1	2.2	2.2	2.2	2.0	2.0	116	1.8	16	3.5	2.2
28	2.5	2.1	2.2	2.2	2.2	2.0	2.0	115	1.6	34	3.2	2.4
29	2.5	2.1	2.2	2.2	2.1	2.0	2.0	114	1.6	138	3.0	2.2
30	2.5	2.1	2.2	2.2	---	2.0	2.0	114	1.6	224	3.1	2.2
31	2.5	---	2.2	2.2	---	2.0	---	114	---	323	3.0	---
TOTAL	80.3	63.7	67.0	68.4	64.6	62.4	62.4	1349.9	1034.3	4893	9501.8	77.4
MEAN	2.59	2.12	2.16	2.21	2.23	2.01	2.08	43.5	34.5	158	307	2.58
MAX	3.0	2.2	2.2	2.4	2.5	2.1	2.4	116	114	323	452	2.8
MIN	2.4	2.0	2.1	2.2	2.1	2.0	2.0	1.8	1.6	16	3.0	2.2
AC-FT	159	126	133	136	128	124	124	2680	2050	9710	18850	154

CAL YR 1979 TOTAL 7466.8 MEAN 20.5 MAX 117 MIN 2.0 AC-FT 14810
WTR YR 1980 TOTAL 17325.2 MEAN 47.3 MAX 452 MIN 1.6 AC-FT 34360

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WY

LOCATION.--Lat 44°35'22", long 104°42'12", in NW¼SE¼SE¼ sec.7, T.53 N., R.65 W., Crook County, Hydrologic Unit 10120201, at bridge 0.2 mi (0.3 km) west of entrance to Devils Tower National Monument.

PERIOD OF RECORD.--Water years 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
OCT 11...	1110	12	1750	8.1	11.0	8	--	710	510
NOV 07...	1215	7.3	1700	8.0	3.0	3	--	570	350
DEC 05...	1100	11	2200	7.9	1.0	4	--	1000	760
JAN 09...	0900	E6.0	2400	7.6	.0	4	--	1100	800
FEB 20...	1345	6.3	2000	--	.5	--	8.0	880	630
MAR 19...	1040	45	1350	--	.0	--	--	590	440
APR 23...	0850	17	1870	--	12.0	10	--	910	720
MAY 20...	1230	8.5	2000	--	19.0	10	--	960	790
JUN 18...	1330	11	810	--	24.0	60	--	310	190
JUL 24...	1430	204	1160	8.3	25.0	55	--	320	160
AUG 26...	1145	E360	1185	8.3	17.0	25	--	320	160
SEP 24...	1015	9.3	1678	8.1	9.5	--	--	530	320

E-Estimate.

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
OCT 11...	190	59	170	2.8	9.0	240	0	200	800
NOV 07...	150	50	140	2.5	7.0	270	0	220	610
DEC 05...	280	76	150	2.1	9.3	290	0	240	1000
JAN 09...	310	78	170	2.2	8.5	370	0	300	1100
FEB 20...	230	75	130	1.9	7.5	300	0	250	890
MAR 19...	170	40	57	1.0	7.0	180	0	150	510
APR 23...	250	71	80	1.1	9.0	230	0	190	870
MAY 20...	260	76	110	1.5	8.9	210	0	170	990
JUN 18...	87	23	55	1.4	7.1	150	0	120	300
JUL 24...	72	33	110	2.7	8.3	200	0	160	380
AUG 26...	80	30	110	2.7	8.2	200	0	160	390
SEP 24...	140	46	130	2.4	7.0	260	0	210	590

CHEYENNE RIVER BASIN

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WY

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 11...	12	.6	3.6	1360	1.85	44.1	.00	.030
NOV 07...	11	.7	4.5	1100	1.50	21.7	.10	.000
DEC 05...	11	.7	8.5	1680	2.28	49.9	.00	.000
JAN 09...	11	.8	9.7	1870	2.54	--	.26	.040
FEB 20...	9.8	.6	8.2	1500	2.04	25.6	.07	.030
MAR 19...	7.6	.5	4.6	887	1.21	108	.05	.040
APR 23...	6.4	.7	.0	1400	1.90	64.3	<.01	.060
MAY 20...	6.3	.7	5.4	1600	2.18	36.7	.02	.080
JUN 18...	3.7	.2	5.2	560	.76	16.6	.17	.120
JUL 24...	15	.6	1.0	720	.98	397	.00	.060
AUG 26...	15	.8	.0	730	.99	710	.06	.040
SEP 24...	11	.7	5.4	1100	1.50	27.6	.00	.010

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 11...	1110	.00	0	.00	.0	.00	0	.00	.0
MAY 20...	1230	--	0	.00	.0	.00	0	.00	.0
JUN 18...	1330	.11	0	.00	.0	.00	0	.00	.0
JUL 24...	1430	.00	0	.00	.0	.00	0	.00	.0
AUG 26...	1145	.00	0	.00	.0	.01	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
OCT 11...	.00	.0	.09	.0
MAY 20...	.00	.0	.08	.0
JUN 18...	.01	.0	>.23	.0
JUL 24...	.00	.0	.15	.0
AUG 26...	.00	.0	.02	.0

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°44'59", long 104°02'49", in NE¼NW¼NW¼ sec.18, T.9 N., R.1 E., Butte County, Hydrologic Unit 10120202, on left bank 0.3 mi (0.5 km) downstream from State line, 3.7 mi (6.0 km) downstream from Oak Creek, and 11 mi (18 km) northwest of Belle Fourche, SD.

DRAINAGE AREA.--3,280 mi² (8,500 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1946 to current year. Records for water year 1947 incomplete, yearly estimate published in WSP 1729.

GAGE.--Water-stage recorder. Datum of gage is 3,095.7 ft (943.57 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter periods, which are poor. Diversions above station for irrigation of about 5,400 acres (2,200 hm²). Flow regulated by Keyhole Reservoir, usable contents, 191,600 acre-ft (236 hm³), 143 mi (230 km) upstream since Oct. 25, 1952.

AVERAGE DISCHARGE.--34 years, 90.5 ft³/s (2.563 m³/s), 65,570 acre-ft/yr (80.8 hm³/yr); median of yearly mean discharges, 88 ft³/s (2.49 m³/s), 63,800 acre-ft/yr (79 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,400 ft³/s (125 m³/s) June 18, 1962, gage height, 15.59 ft (4.752 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 431 ft³/s (12.2 m³/s) Aug. 20, gage height, 5.78 ft (1.762 m); maximum gage height, 6.11 ft (1.862 m) Feb. 29 (backwater from ice); minimum daily, 4.0 ft³/s (0.11 m³/s) Jan. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	15	14	10	4.5	40	54	33	105	9.4	67	63
2	11	14	14	10	5.0	44	49	32	108	9.1	148	58
3	10	15	14	10	5.0	42	50	31	99	8.0	225	49
4	9.9	18	15	10	5.5	40	47	32	94	7.4	269	44
5	9.4	17	16	10	5.5	42	46	34	83	6.3	300	39
6	9.0	16	15	8.0	5.5	42	44	32	82	11	320	36
7	9.2	16	15	6.0	5.5	42	44	30	91	43	321	33
8	10	15	15	5.0	5.5	42	43	29	92	46	311	31
9	9.9	15	15	5.0	6.0	42	43	29	88	43	299	31
10	9.5	14	16	5.5	5.5	44	43	28	81	36	312	29
11	9.2	17	15	5.0	5.5	44	44	27	76	35	320	55
12	10	17	13	5.5	5.5	44	45	26	73	46	320	150
13	11	16	14	6.0	5.0	42	46	28	70	61	313	55
14	10	16	15	6.5	5.0	45	44	29	58	69	194	50
15	11	19	14	7.0	4.5	50	41	27	58	75	138	120
16	12	17	12	6.5	4.8	50	42	27	118	80	279	90
17	16	16	12	6.5	4.8	50	44	26	115	75	382	45
18	14	18	13	6.0	5.5	50	44	25	76	80	372	40
19	12	17	13	5.5	7.0	48	46	27	64	81	354	35
20	12	17	13	5.5	8.0	48	45	24	43	89	386	35
21	19	15	13	5.5	9.0	48	44	22	37	99	265	35
22	15	15	13	5.5	10	50	44	20	32	105	181	35
23	14	15	13	6.0	10	55	45	19	28	103	258	35
24	14	15	13	7.0	11	55	45	17	24	104	327	33
25	14	14	13	6.5	20	55	44	61	21	105	336	33
26	14	14	13	6.0	35	56	44	76	18	118	337	30
27	14	14	12	5.5	50	58	41	78	16	141	346	29
28	16	14	12	5.0	48	62	39	81	13	153	346	28
29	17	13	11	4.5	45	66	37	83	12	146	201	23
30	16	13	11	4.0	---	66	34	88	10	63	97	22
31	15	---	10	4.5	---	60	---	90	---	38	75	---
TOTAL	384.1	467	417	199.5	347.1	1522	1321	1211	1885	2085.2	8399	1391
MEAN	12.4	15.6	13.5	6.44	12.0	49.1	44.0	39.1	62.8	67.3	271	46.4
MAX	19	19	16	10	50	66	54	90	118	153	386	150
MIN	9.0	13	10	4.0	4.5	40	34	17	10	6.3	67	22
AC-FT	762	926	827	396	688	3020	2620	2400	3740	4140	16660	2760

CAL YR 1979 TOTAL 21123.0 MEAN 57.9 MAX 350 MIN 4.0 AC-FT 41900
WTR YR 1980 TOTAL 19628.9 MEAN 53.6 MAX 386 MIN 4.0 AC-FT 38930

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)
OCT										
11...	0830	--	17	2550	8.2	11.0	10	9.3	2.7	96
NOV										
07...	0815	--	26	2200	8.0	1.0	4	13.2	2.5	35
DEC										
05...	0800	--	22	2600	7.9	1.0	5	13.4	1.7	25
JAN										
08...	1400	5.0	--	3100	7.6	.0	10	13.6	1.9	K2
FEB										
20...	1000	8.0	--	2800	7.6	.5	3	8.9	.9	5
MAR										
18...	1715	50	--	1360	--	.5	30	11.6	--	13
APR										
22...	1700	44	--	1920	--	19.0	20	8.0	1.2	100
MAY										
20...	1800	--	22	2090	--	24.0	15	8.8	2.2	40
JUN										
18...	1945	--	65	1440	--	23.0	220	7.0	2.1	--
JUL										
24...	1730	--	101	1320	8.5	26.5	280	7.0	2.3	470
AUG										
27...	0800	--	343	1300	8.2	15.0	220	8.1	1.7	K93
SEP										
23...	1830	35	--	2060	8.3	14.0	400	8.8	2.5	150

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
OCT										
11...	1100	920	310	89	200	2.6	11	220	0	180
NOV										
07...	950	790	260	73	130	1.8	8.5	200	0	160
DEC										
05...	1300	1100	370	90	170	2.1	10	240	0	200
JAN										
08...	1600	1300	460	110	200	2.2	12	350	0	290
FEB										
20...	1300	1100	340	110	150	1.8	10	300	0	250
MAR										
18...	570	440	170	36	58	1.1	6.3	160	0	130
APR										
22...	960	800	270	71	90	1.3	10	190	0	160
MAY										
20...	1000	870	270	82	120	1.6	11	170	0	140
JUN										
18...	580	460	150	46	100	1.8	9.5	150	0	120
JUL										
24...	410	240	99	40	110	2.4	8.8	210	0	170
AUG										
27...	360	190	84	37	110	2.5	7.8	210	0	170
SEP										
23...	830	650	220	67	130	2.0	10	220	0	180

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
OCT 11...	1300	10	.8	2.3	2030	2.76	93.2	27	.15	.00
NOV 07...	990	7.8	.9	3.1	1570	2.14	110	9	.05	.00
DEC 05...	1400	11	.8	6.6	2180	2.96	130	6	.01	.01
JAN 08...	1700	12	.9	9.7	2670	3.63	36.0	--	.54	.19
FEB 20...	1300	11	.9	8.3	2080	2.83	44.9	3	.03	.23
MAR 18...	540	6.2	.6	3.7	900	1.22	122	84	.01	.04
APR 22...	990	6.6	.7	.0	1500	2.04	178	65	.00	<.01
MAY 20...	1100	6.6	.8	3.5	1680	2.28	99.8	14	.02	.03
JUN 18...	650	11	1.0	5.9	1000	1.36	176	516	.10	.08
JUL 24...	460	15	.7	4.4	840	1.14	229	272	.01	.17
AUG 27...	420	15	.8	.0	770	1.05	713	90	.00	.00
SEP 23...	870	12	.9	7.7	1400	1.90	132	146	.00	.00

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)
OCT 11...	.080	.10	.56	.64	.79	3.5	.030	--	--
NOV 07...	.060	.07	.36	.42	.47	2.1	.010	--	--
DEC 05...	.120	.15	.45	.57	.58	2.6	.000	--	--
JAN 08...	.190	.23	1.1	1.3	1.8	8.1	.030	--	--
FEB 20...	.100	.12	.17	.27	.30	1.3	.010	--	--
MAR 18...	.020	.02	.45	.47	.48	2.1	.050	6.6	.7
APR 22...	.010	.01	1.1	1.1	1.1	4.9	.050	--	--
MAY 20...	.040	.05	.49	.53	.55	2.4	.070	--	--
JUN 18...	.030	.04	9.8	9.8	9.9	44	.260	--	--
JUL 24...	.000	.00	.13	.13	.14	.62	.230	--	--
AUG 27...	.000	.00	1.1	1.1	1.1	4.9	.260	--	--
SEP 23...	.040	.05	.78	.82	.82	3.6	.150	--	--

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT 11...	0830	230	220	10	1	1	0	0	0	0	280	2
NOV 07...	0815	--	--	--	--	--	--	--	--	--	330	--
DEC 05...	0800	--	--	--	--	--	--	--	--	--	270	--
JAN 08...	1400	--	--	--	--	--	--	--	--	--	370	--
FEB 20...	1000	--	--	--	--	--	--	--	--	--	280	--
MAR 18...	1715	1300	1300	0	1	0	1	0	0	<1	200	0
APR 22...	1700	--	--	--	--	--	--	--	--	--	310	--
MAY 20...	1800	--	--	--	--	--	--	--	--	--	290	--
JUN 18...	1945	--	--	--	--	--	--	--	--	--	210	--
JUL 24...	1730	--	--	--	--	--	--	--	--	--	130	--
AUG 27...	0800	--	--	--	--	--	--	--	--	--	210	--
SEP 23...	1830	--	--	--	--	--	--	--	--	--	110	--

DATE	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
OCT 11...	0	2	10	0	10	2	0	2	260	--	10	0
NOV 07...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 08...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 18...	0	<1	0	0	0	5	1	4	1700	1700	20	3
APR 22...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 20...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 27...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 23...	--	--	--	--	--	--	--	--	--	--	--	--

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM SUS-PENDED RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)
OCT 11...	0	0	120	0	120	140	10	130	.0	.0	.0	3
NOV 07...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 08...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 18...	3	0	60	0	60	210	120	90	.0	.0	.0	0
APR 22...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 20...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 27...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 23...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	MOLYB-DENUM, SUS-PENDED RECOV. (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 11...	3	0	2	0	5	1	0	1	--	10	0	10
NOV 07...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 08...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 20...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 18...	0	<10	10	5	5	2	0	2	.0	20	20	<3
APR 22...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 20...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 27...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 23...	--	--	--	--	--	--	--	--	--	--	--	--

06429500 COLD SPRINGS CREEK AT BUCKHORN, WY

LOCATION.--Lat 44°09'14", long 104°04'39", in NW¼ sec.9, T.48 N., R.60 W., Weston County, Hydrologic Unit 10120303, on right shoulder of Cold Springs Creek road, 155 ft (47 m) upstream from centerline of U.S. Highway 85, and 0.5 mi (0.8 km) northeast of Buckhorn.

DRAINAGE AREA.--19.0 mi^2 (49.2 km^2).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,090 ft (1,855 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are poor.

AVERAGE DISCHARGE.--6 years, 4.65 ft^3/s (0.132 m^3/s), 3,450 acre-ft/yr (4.25 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12 ft^3/s (0.34 m^3/s) July 1, 1979, Apr. 22, 1980, gage height, 4.97 ft (1.515 m); maximum gage height, 8.61 ft (2.624 m) Jan. 12, 1978 (backwater from ice); minimum daily discharge, 2.0 ft^3/s (0.057 m^3/s) Mar. 28, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12 ft^3/s (0.34 m^3/s) Apr. 22, gage height, 4.97 ft (1.515 m); maximum gage height, 5.63 ft (1.716 m) Mar. 17 (backwater from ice); minimum daily discharge, 3.0 ft^3/s (0.085 m^3/s) Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	4.2	4.3	4.3	4.2	4.6	5.0	4.4	3.8	5.2	5.4	4.3
2	4.6	4.3	4.4	4.3	4.3	4.8	5.0	4.4	3.6	5.0	5.4	3.5
3	4.4	4.5	4.4	4.2	4.4	5.0	5.0	4.3	3.6	4.6	5.4	3.0
4	4.6	4.6	4.5	4.2	4.4	5.0	5.0	4.3	3.6	4.8	5.2	3.4
5	4.6	4.6	4.6	4.4	4.4	4.8	5.2	4.1	3.8	4.6	5.6	3.5
6	4.6	4.6	4.6	4.2	4.4	5.0	5.2	4.1	3.6	4.4	5.6	3.9
7	4.4	4.3	4.3	4.1	4.4	4.9	5.0	4.1	3.9	4.3	5.8	4.3
8	4.4	4.2	4.4	4.0	4.4	5.0	5.2	4.1	3.8	4.1	6.0	4.6
9	4.3	4.2	4.6	3.8	4.4	5.0	5.0	4.0	3.9	4.1	6.5	4.8
10	4.3	4.2	4.6	4.0	4.4	5.0	5.2	4.3	3.9	4.0	6.5	5.0
11	4.3	4.4	3.8	4.3	4.2	5.0	5.2	4.1	3.9	4.0	6.3	5.2
12	4.3	4.6	3.5	4.2	4.3	5.0	5.2	4.0	3.9	4.0	6.5	5.8
13	4.3	4.5	4.4	4.4	4.4	4.8	5.0	3.9	4.1	4.0	6.0	5.8
14	4.3	4.5	4.6	4.4	4.4	5.0	5.4	3.8	4.1	4.0	5.2	5.8
15	4.3	4.4	4.8	4.4	4.4	5.2	5.8	3.8	4.3	4.0	5.2	4.8
16	4.3	4.4	4.0	4.2	4.3	5.0	6.0	3.6	5.0	3.9	5.4	4.8
17	4.3	4.5	4.1	4.2	4.4	4.8	6.3	3.6	5.2	3.9	5.2	4.1
18	4.3	4.6	4.4	4.2	4.6	5.0	6.5	3.6	4.8	3.8	5.6	3.9
19	4.3	4.8	4.8	4.2	4.8	5.0	6.8	3.6	5.2	3.8	5.8	5.2
20	4.3	5.0	4.4	4.0	4.8	5.0	7.2	3.5	5.4	3.8	7.0	5.8
21	4.3	4.7	4.3	4.2	4.8	4.9	8.0	3.6	5.4	3.9	6.5	5.6
22	4.6	4.5	4.3	4.2	4.8	5.0	9.5	3.5	5.6	4.1	5.6	5.2
23	4.3	4.3	4.3	4.4	4.4	4.8	8.0	3.5	5.8	4.6	6.3	4.6
24	4.3	4.3	4.2	4.4	4.5	5.0	7.0	3.5	5.4	4.6	5.6	4.0
25	4.3	4.5	4.2	4.2	4.8	5.0	6.0	3.6	5.6	5.0	5.6	3.7
26	4.4	4.5	4.2	4.0	4.8	5.0	5.6	3.5	5.6	5.4	5.8	3.7
27	4.4	4.3	4.2	3.8	5.0	4.8	5.2	3.6	5.6	5.2	6.0	3.9
28	4.4	4.1	4.2	3.7	5.0	5.0	4.8	3.6	5.6	5.2	5.8	4.0
29	4.4	4.0	4.1	3.5	4.8	5.0	4.6	3.8	5.6	5.2	5.8	4.2
30	4.6	4.2	4.1	3.7	---	4.9	4.6	3.8	5.4	4.8	6.5	4.4
31	4.4	---	4.1	3.9	---	5.0	---	3.8	---	4.8	6.0	---
TOTAL	136.2	132.8	133.7	128.0	131.2	153.3	173.5	119.4	139.0	137.1	181.1	134.8
MEAN	4.39	4.43	4.31	4.13	4.52	4.95	5.78	3.85	4.63	4.42	5.84	4.49
MAX	4.6	5.0	4.8	4.4	5.0	5.2	9.5	4.4	5.8	5.4	7.0	5.8
MIN	4.3	4.0	3.5	3.5	4.2	4.6	4.6	3.5	3.6	3.8	5.2	3.0
AC-FT	270	263	265	254	260	304	344	237	276	272	359	267

CAL YR 1979 TOTAL 1664.7 MEAN 4.56 MAX 6.3 MIN 2.2 AC-FT 3300
WTR YR 1980 TOTAL 1700.1 MEAN 4.65 MAX 9.5 MIN 3.0 AC-FT 3370

06429905 SAND CREEK NEAR RANCH A, NEAR BEULAH, WY

LOCATION.--Lat 44°31'13", long 104°05'00", in SE¼SW¼ sec.5, T.52 N., R.60 W., Crook County, Hydrologic Unit 10120303, on left bank 1.0 mi (1.6 km) upstream from Bear Gulch, and 1.6 mi (2.6 km) south of Beulah.

DRAINAGE AREA.--267 mi^2 (692 km^2).

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,600 ft (1,100 m), from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 96 ft^3/s (2.72 m^3/s) Apr. 29, 1978, gage height, 5.73 ft (1.747 m); minimum daily, 16 ft^3/s (0.45 m^3/s) Apr. 15-21, 1979.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 700 ft^3/s (19.8 m^3/s) June 15, 1976, gage height, 7.77 ft (2.368 m), from slope-area measurement of peak flow at site 3 mi (4.8 km) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31 ft^3/s (0.88 m^3/s) June 14, gage height, 5.20 ft (1.585 m); minimum daily, 19 ft^3/s (0.54 m^3/s) Feb. 29 to Mar. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	22	24	22	21	19	20	22	23	24	21	22
2	22	23	24	22	21	19	20	22	24	24	21	22
3	21	23	23	22	20	19	20	22	24	24	21	22
4	21	24	23	22	20	19	20	21	24	24	20	22
5	21	23	23	22	20	19	20	21	24	24	20	21
6	21	23	23	23	20	19	20	22	25	24	20	21
7	21	23	23	23	20	19	20	22	25	24	20	22
8	21	23	22	23	20	19	20	22	24	24	20	21
9	22	24	22	23	20	20	20	22	24	24	20	22
10	22	24	22	23	20	20	20	22	24	24	20	22
11	22	23	22	22	20	20	20	22	24	24	20	23
12	22	23	22	22	20	20	20	22	24	24	21	24
13	22	23	22	22	20	20	20	22	24	23	20	22
14	22	23	22	22	20	20	20	22	26	23	20	22
15	22	23	22	22	20	20	20	22	26	23	20	22
16	22	24	22	22	20	20	20	22	26	23	20	22
17	22	24	22	21	20	20	20	22	24	22	20	22
18	22	24	22	21	20	20	20	22	24	22	20	22
19	22	23	22	22	20	20	20	22	24	23	21	22
20	22	23	22	22	20	20	20	22	24	22	21	22
21	23	23	22	22	20	20	21	22	24	22	21	21
22	23	22	22	21	20	20	21	23	24	22	21	21
23	23	23	22	21	20	20	21	24	24	22	21	21
24	23	23	22	21	20	20	21	24	24	22	21	21
25	23	23	22	22	20	20	21	23	24	22	21	22
26	24	23	22	22	20	20	20	23	24	22	21	22
27	23	23	22	22	20	20	21	23	24	22	21	22
28	23	24	22	21	20	20	21	23	24	21	21	21
29	23	24	22	21	19	20	21	23	24	21	21	21
30	23	24	22	21	---	20	22	23	24	21	21	21
31	23	---	22	21	---	20	---	23	---	21	22	---
TOTAL	688	697	691	678	581	612	610	692	727	707	638	653
MEAN	22.2	23.2	22.3	21.9	20.0	19.7	20.3	22.3	24.2	22.8	20.6	21.8
MAX	24	24	24	23	21	20	22	24	26	24	22	24
MIN	21	22	22	21	19	19	20	21	23	21	20	21
AC-FT	1360	1380	1370	1340	1150	1210	1210	1370	1440	1400	1270	1300

CAL YR 1979 TOTAL 8534 MEAN 23.4 MAX 28 MIN 16 AC-FT 16930
WTR YR 1980 TOTAL 7974 MEAN 21.8 MAX 26 MIN 19 AC-FT 15820

06430000 MURRAY DITCH AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°34'35", long 104°02'58", in SW¼SW¼ sec.7, T.7 N., R.1 E., Butte County, SD, Hydrologic Unit 10120203, on right bank 15 ft (5 m) downstream from State line and 12 mi (19 km) southwest of Belle Fourche, SD.

PERIOD OF RECORD.--June 1954 to current year (irrigation seasons only prior to October 1959).

GAGE.--Water-stage recorder. Altitude of gage is 3,440 ft (1,050 m), from topographic map.

REMARKS.--Records fair. Ditch diverts water from left bank of Redwater Creek, 2.0 mi (3.2 km) upstream, for irrigation of about 700 acres (283 hm²). Flow maintained during irrigation season only.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 37 ft³/s (1.05 m³/s) July 17, 1973; no flow for long periods in each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 26 ft³/s (0.74 m³/s) May 24, Aug. 31, gage height, 2.37 ft (0.722 m); no flow for long periods.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	.00	.00	.00	.00	.00	.00	.00	9.2	9.4	5.5	19
2	12	.00	.00	.00	.00	.00	.00	.00	9.4	11	6.5	17
3	11	.00	.00	.00	.00	.00	.00	.00	9.4	9.0	7.5	13
4	12	.00	.00	.00	.00	.00	.00	.00	8.9	5.7	8.0	13
5	11	.00	.00	.00	.00	.00	.00	.00	7.3	5.3	8.5	12
6	11	.00	.00	.00	.00	.00	.00	.00	6.9	5.8	9.0	4.3
7	8.1	.00	.00	.00	.00	.00	.00	.00	3.6	5.1	10	2.6
8	7.6	.00	.00	.00	.00	.00	.00	.00	.85	6.9	11	1.9
9	12	.00	.00	.00	.00	.00	.00	.00	5.5	8.0	12	5.1
10	12	.00	.00	.00	.00	.00	.00	.00	5.4	7.9	12	8.5
11	12	.00	.00	.00	.00	.00	.00	.00	5.2	6.8	12	9.5
12	13	.00	.00	.00	.00	.00	.00	.00	5.2	8.4	12	9.1
13	14	.00	.00	.00	.00	.00	.00	.00	5.3	11	11	7.4
14	10	.00	.00	.00	.00	.00	.00	.00	5.6	12	14	4.4
15	7.5	.00	.00	.00	.00	.00	.00	.00	.06	12	15	2.4
16	5.2	.00	.00	.00	.00	.00	.00	.00	.00	12	14	3.3
17	5.1	.00	.00	.00	.00	.00	.00	.00	.00	14	14	.96
18	4.4	.00	.00	.00	.00	.00	.00	.00	.00	16	15	.45
19	2.8	.00	.00	.00	.00	.00	.00	.47	.00	17	14	.24
20	2.2	.00	.00	.00	.00	.00	.00	.00	.00	19	12	.12
21	.80	.00	.00	.00	.00	.00	.00	.90	.00	18	15	.03
22	.30	.00	.00	.00	.00	.00	.00	.00	.00	18	14	.00
23	.21	.08	.00	.00	.00	.00	.00	9.1	.00	13	16	.00
24	.06	.21	.00	.00	.00	.00	.00	26	.00	10	15	.00
25	.00	.06	.00	.00	.00	.00	.00	20	.38	10	15	.00
26	.00	.28	.00	.00	.00	.00	.00	16	3.8	10	16	.00
27	.00	.70	.00	.00	.00	.00	.00	16	8.2	12	18	.00
28	.00	.00	.00	.00	.00	.00	.00	9.4	10	12	20	.00
29	.02	.00	.00	.00	.00	.00	.00	12	7.3	13	24	.00
30	.00	.00	.00	.00	---	.00	.00	11	8.5	9.2	25	.00
31	.00	---	.00	.00	---	.00	---	8.9	---	5.6	26	---
TOTAL	183.79	1.33	.00	.00	.00	.00	.00	129.77	125.99	333.1	427.0	134.30
MEAN	5.93	.044	.000	.000	.000	.000	.000	4.19	4.20	10.7	13.8	4.48
MAX	14	.70	.00	.00	.00	.00	.00	26	10	19	26	19
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.1	5.5	.00
AC-FT	365	2.6	.00	.00	.00	.00	.00	257	250	661	847	266

CAL YR 1979 TOTAL 1363.76 MEAN 3.74 MAX 27 MIN .00 AC-FT 2710
WTR YR 1980 TOTAL 1335.28 MEAN 3.65 MAX 26 MIN .00 AC-FT 2650

06430500 REDWATER CREEK AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°34'26", long 104°02'54", in NW¼NW¼ sec.18, T.7 N., R.1 E., Butte County, SD, Hydrologic Unit 10120203, on left bank 800 ft (244 m) downstream from State line, 5.7 mi (9.2 km) upstream from Crow Creek, and 12 mi (19 km) southwest of Belle Fourche, SD.

DRAINAGE AREA.--471 mi^2 (1,220 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1929 to September 1931 and February 1936 to July 1937 (published as "near Beulah, WY"), June 1954 to current year.

REVISED RECORDS.--WSP 1309: 1931(M), 1936-37(M).

GAGE.--Water-stage recorder. Altitude of gage is 3,410 ft (1,040 m), from topographic map. Apr. 25, 1929, to Sept. 30, 1931, and Feb. 28, 1936, to July 31, 1937, nonrecording gage at site 2 mi (3 km) upstream at different datum.

REMARKS.--Records good. Large diversions for irrigation above station. Total flow passing State line may be obtained by adding flow of Murray ditch (see sta 06430000).

AVERAGE DISCHARGE.--28 years, 36.6 ft^3/s (1.037 m^3/s), 26,520 acre-ft/yr (32.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,440 ft^3/s (69.1 m^3/s) Aug. 22, 1973, gage height, 12.19 ft (3.716 m), from rating curve extended above 1,000 ft^3/s (27 m^3/s) on basis of slope-area measurement at gage height 11.95 ft (3.462 m); no flow Aug. 13-15, 1929.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 738 ft^3/s (20.9 m^3/s) June 14, gage height, 6.65 ft (2.027 m), no other peak above base of 150 ft^3/s (4.25 m^3/s); minimum daily discharge, 2.0 ft^3/s (0.06 m^3/s) July 18, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	37	37	36	35	35	33	25	18	18	22	25
2	23	38	37	36	35	34	32	25	21	18	20	24
3	22	37	37	36	35	33	34	24	21	19	22	24
4	22	37	38	36	35	35	33	26	21	19	17	22
5	21	37	39	36	36	34	33	28	22	17	16	22
6	16	36	38	35	37	34	33	32	25	18	17	31
7	17	37	38	35	36	34	33	33	26	15	16	33
8	19	37	38	36	35	34	31	33	23	5.1	6.2	29
9	16	38	38	36	36	34	31	33	18	4.8	8.8	25
10	16	38	38	37	35	34	32	32	23	4.8	5.2	19
11	15	39	38	36	35	34	33	30	24	4.6	7.6	20
12	12	38	37	37	36	35	32	30	24	4.1	4.0	19
13	12	38	37	34	37	34	32	29	25	3.7	3.9	18
14	12	38	37	34	36	33	32	30	166	3.0	4.5	20
15	21	38	38	33	36	33	32	31	101	2.8	5.4	20
16	29	38	37	33	36	34	31	31	51	2.5	6.1	21
17	29	38	36	33	36	33	31	32	46	2.2	6.8	26
18	32	38	36	33	36	33	30	32	37	2.0	7.0	26
19	35	38	35	34	37	33	31	25	37	3.2	7.1	27
20	35	38	35	33	36	33	36	22	37	2.0	9.6	27
21	37	38	36	34	36	33	36	23	36	2.1	8.5	27
22	38	38	36	34	35	34	36	20	36	2.3	12	26
23	38	38	36	34	35	33	34	15	35	2.2	14	26
24	38	38	35	34	34	33	32	9.2	35	2.9	17	27
25	38	38	35	35	34	33	31	9.2	32	4.6	17	27
26	38	38	35	35	34	33	32	7.7	29	7.9	18	28
27	38	37	35	35	34	33	31	9.0	28	10	20	28
28	38	38	35	34	35	34	29	21	30	9.9	20	28
29	39	38	36	34	34	33	26	13	31	11	16	27
30	38	37	36	35	---	34	27	15	24	18	11	26
31	38	---	36	35	---	34	---	19	---	34	19	---
TOTAL	846	1131	1135	1078	1027	1043	959	744.1	1082	273.7	384.7	748
MEAN	27.3	37.7	36.6	34.8	35.4	33.6	32.0	24.0	36.1	8.83	12.4	24.9
MAX	39	39	39	37	37	35	36	33	166	34	22	33
MIN	12	36	35	33	34	33	26	7.7	18	2.0	3.9	18
AC-FT	1680	2240	2250	2140	2040	2070	1900	1480	2150	543	763	1480

CAL YR 1979 TOTAL 12307.9 MEAN 33.7 MAX 54 MIN 5.4 AC-FT 24410
WTR YR 1980 TOTAL 10451.5 MEAN 28.6 MAX 166 MIN 2.0 AC-FT 20730

06430500 REDWATER CREEK AT WYOMING-SOUTH DAKOTA STATE LINE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969-70, 1972 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPERATURE, WATER (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	NUMBER OF SAMPLING POINTS	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM
OCT 02...	1600	12.0	22	7	.42	--	--	--	--
NOV 05...	1630	6.5	37	30	3.0	--	--	--	--
DEC 03...	1415	6.0	38	20	2.1	--	--	--	--
FEB 04...	1530	7.0	35	48	4.5	--	--	--	--
MAR 03...	1415	6.0	35	62	5.9	--	--	--	--
APR 10...	1200	8.0	32	39	3.4	--	--	--	--
MAY 08...	1345	13.0	33	28	2.5	--	--	--	--
JUN 02...	1615	18.5	22	52	3.1	18	2	4	13
JUL 02...	1330	19.0	18	14	.68	--	--	--	--
AUG 07...	1400	21.0	15	52	2.1	--	--	--	--
SEP 10...	1315	15.5	18	6	.29	--	--	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
OCT 02...	--	--	--	--	--	--	--	--
NOV 05...	--	--	--	--	--	--	--	--
DEC 03...	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--
MAR 03...	--	--	--	--	--	--	--	--
APR 10...	--	--	--	--	--	--	--	--
MAY 08...	--	--	--	--	--	--	--	--
JUN 02...	23	28	34	42	52	59	80	100
JUL 02...	--	--	--	--	--	--	--	--
AUG 07...	--	--	--	--	--	--	--	--
SEP 10...	--	--	--	--	--	--	--	--

06454000 NIOBRARA RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 42°39'33", long 104°03'54", in SE¼SW¼ sec.15, T.31 N., R.60 W., Niobrara County, WY, Hydrologic Unit 10150002, on left bank 0.2 mi (0.3 km) downstream from Van Tassel Creek, 0.3 mi (0.5 km) upstream from Wyoming-Nebraska State line, and 3 mi (5 km) east of Van Tassel, WY.

DRAINAGE AREA.--450 mi^2 (1,170 km^2), approximately.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,687.70 ft (1,428.811 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diversions for irrigation of about 4,700 acres (19.0 km^2) above station.

AVERAGE DISCHARGE.--25 years, 4.05 ft^3/s (0.115 m^3/s), 2,930 acre-ft/yr (3.61 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,120 ft^3/s (60.0 m^3/s) Aug. 16, 1977, gage height, 8.28 ft (2.524 m) in gage well, from rating curve extended above 800 ft^3/s (22.7 m^3/s) on basis of computation of peak flow from slope-area measurement; minimum daily, 0.54 ft^3/s (0.015 m^3/s) Aug. 9, 10, 12, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51 ft^3/s (1.44 m^3/s) Mar 20, gage height 2.55 ft (0.777 m), no other peak above base of 20 ft^3/s (0.57 m^3/s); maximum gage height, 3.79 ft (1.155 m) Nov. 30, backwater from ice; minimum daily discharge, 0.92 ft^3/s (0.026 m^3/s) Aug. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.1	2.5	2.6	3.5	4.5	7.0	3.5	3.9	1.9	1.2	1.9
2	2.0	2.0	3.0	2.6	3.5	4.6	6.7	3.5	3.5	1.8	1.1	1.9
3	2.0	2.1	2.8	2.6	3.4	3.7	6.7	3.5	3.3	1.7	.99	1.8
4	2.0	2.1	2.9	2.6	3.4	3.5	7.0	3.5	3.1	1.6	.92	1.9
5	2.0	2.1	3.1	2.6	3.4	4.0	7.0	3.3	3.0	1.6	1.0	1.9
6	2.1	2.2	3.2	2.6	3.5	4.5	6.7	3.4	2.9	1.5	1.9	1.7
7	2.1	2.3	3.1	2.6	3.5	5.0	6.5	3.2	2.9	1.4	1.8	1.9
8	2.1	2.4	3.1	2.7	3.4	8.8	5.8	3.1	2.8	1.5	1.8	1.9
9	2.1	2.4	3.1	2.7	3.4	6.2	5.4	3.1	2.8	1.3	2.9	2.0
10	2.1	2.4	3.2	2.7	3.2	7.0	6.0	3.5	2.7	1.3	2.9	2.0
11	2.1	2.5	3.2	2.5	3.0	7.3	5.9	4.2	2.4	1.5	2.2	1.8
12	2.0	2.4	3.1	2.8	2.9	6.8	6.1	4.9	2.2	1.5	1.6	1.6
13	2.0	2.4	3.1	2.7	2.9	6.0	5.8	4.2	2.2	2.3	1.6	1.7
14	2.1	2.2	2.9	2.8	2.8	10	5.6	3.8	2.2	1.8	1.4	1.8
15	2.1	2.3	3.1	2.8	3.0	12	5.1	4.7	2.2	1.8	1.8	1.8
16	1.9	2.4	2.9	2.8	3.5	15	5.1	7.5	2.3	1.5	1.9	1.7
17	2.0	2.5	2.8	2.6	3.4	18	4.7	7.1	2.4	1.5	1.6	1.7
18	2.1	2.7	2.8	2.4	3.1	20	4.5	6.5	2.4	1.6	1.5	1.6
19	2.1	2.7	2.8	2.5	3.1	16	4.4	5.9	2.3	2.0	1.5	1.7
20	2.1	2.6	2.8	2.4	3.2	12	4.0	5.2	2.2	1.6	1.6	1.7
21	2.1	2.5	2.9	2.5	5.1	13	4.0	5.0	2.7	2.1	1.6	1.9
22	2.1	2.4	2.9	2.3	4.3	12	3.8	4.7	3.0	1.9	1.6	1.9
23	2.1	2.4	2.9	2.4	4.1	12	3.9	4.3	2.4	2.0	1.6	1.9
24	2.0	2.4	2.9	2.7	4.1	11	3.9	4.2	2.2	1.7	1.8	1.9
25	2.0	2.5	2.9	2.7	5.1	10	3.7	4.0	2.0	2.1	1.8	2.1
26	2.0	2.5	2.8	2.7	6.1	9.7	3.7	3.7	2.1	3.5	1.8	2.2
27	2.0	2.5	2.8	2.7	6.3	8.9	3.6	4.1	2.1	2.2	1.9	2.1
28	2.0	2.4	2.9	2.7	6.3	7.9	3.5	5.9	2.1	1.7	1.8	2.1
29	2.0	2.3	2.9	2.6	4.5	7.3	3.5	4.1	2.1	1.5	1.8	2.0
30	2.1	2.2	2.8	2.7	---	7.3	3.7	4.0	2.0	1.3	1.8	1.9
31	2.1	---	2.7	3.5	---	7.0	---	4.1	---	1.2	1.9	---
TOTAL	63.5	70.9	90.9	82.1	111.0	281.0	153.3	135.7	76.4	53.9	52.61	56.0
MEAN	2.05	2.36	2.93	2.65	3.83	9.06	5.11	4.38	2.55	1.74	1.70	1.87
MAX	2.1	2.7	3.2	3.5	6.3	20	7.0	7.5	3.9	3.5	2.9	2.2
MIN	1.9	2.0	2.5	2.3	2.8	3.5	3.5	3.1	2.0	1.2	.92	1.6
AC-FT	126	141	180	163	220	557	304	269	152	107	104	111

CAL YR 1979 TOTAL 920.20 MEAN 2.52 MAX 4.3 MIN 1.0 AC-FT 1830
WTR YR 1980 TOTAL 1227.31 MEAN 3.35 MAX 20 MIN .92 AC-FT 2430

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO

LOCATION.--Lat 40°56'10", long 106°20'21", in SW¼SE¼ sec.11, T.11 N., R.80 W., Jackson County, Hydrologic Unit 10180001, on right bank 350 ft (110 m) downstream from bridge on State Highway 125, 0.8 mi (1.3 km) upstream from Camp Creek, 4.2 mi (6.8 km) northwest of Northgate, and 4.4 mi (7.1 km) south of Colorado-Wyoming State line.

DRAINAGE AREA.--1,431 mi² (3,706 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to November 1904 (published as "near Pinkhampton"), May 1915 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1916-21, 1929(M), 1930-32. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,810.39 ft (2,380.607 m), National Geodetic Vertical Datum of 1929. See WSP 1730 for history of changes prior to Apr. 8, 1918. Apr. 8, 1918, to Aug. 21, 1961, water-stage recorder at site 0.8 mi (1.3 km) downstream at datum 3.36 ft (1.024 m) lower.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 130,000 acres (526 km²) of hay meadows above station. Transbasin diversions above Cache la Poudre River basin (see elsewhere in this report).

AVERAGE DISCHARGE.--65 years, 433 ft³/s (12.26 m³/s), 313,700 acre-ft/yr (387 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,720 ft³/s (190 m³/s) June 11, 1923, gage height, 6.24 ft (1.902 m), site and datum then in use; maximum gage height recorded, 9.65 ft (2.941 m) Apr. 25, 1980, ice jam; minimum daily discharge, 19 ft³/s (0.54 m³/s) July 17-19, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,260 ft³/s (177 m³/s) Apr. 26, gage height, 7.63 ft (2.326 m); maximum gage height, 9.65 ft (2.941 m) Apr. 25 (ice jam); minimum daily discharge, 48 ft³/s (1.359 m³/s) Jan. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	94	70	79	54	117	158	2770	1150	1130	277	111
2	80	100	76	81	62	121	161	2480	1110	1390	264	110
3	77	104	84	83	72	126	166	2210	1110	1520	246	101
4	76	110	93	85	69	130	180	2120	990	1390	216	91
5	75	113	94	86	67	133	193	2060	1020	1190	197	86
6	76	116	92	85	68	132	204	2200	1150	984	183	84
7	75	117	91	83	67	130	211	2320	1220	855	169	84
8	70	117	89	85	63	130	218	3020	1300	917	163	88
9	66	113	86	88	56	134	222	3290	1400	923	154	117
10	66	107	77	90	57	140	227	3080	1540	806	142	152
11	66	100	71	89	61	143	228	2980	1690	737	139	143
12	66	98	75	91	67	143	230	3020	1750	689	132	139
13	66	100	79	95	75	141	233	2860	1800	643	126	151
14	68	107	81	97	84	148	242	2420	1870	661	126	162
15	68	114	84	97	90	153	258	1900	1660	554	148	147
16	70	118	87	95	94	148	277	1640	1500	474	201	125
17	75	121	89	94	98	143	300	1650	1370	428	208	110
18	77	116	90	92	102	143	350	1890	1320	465	190	94
19	78	107	92	89	103	151	410	1920	1400	490	160	81
20	90	96	91	88	104	160	630	1820	1540	448	138	83
21	124	86	89	88	104	169	1270	1590	1440	439	133	92
22	121	78	87	88	103	169	2150	1560	1410	406	123	96
23	112	81	84	87	102	167	3350	1740	1380	390	118	101
24	121	85	81	85	99	165	3850	1980	1280	355	121	105
25	134	87	83	81	96	163	4200	2150	1220	345	138	101
26	151	85	84	77	100	162	4400	2200	1180	350	162	101
27	151	81	86	71	108	160	3000	1880	1210	325	184	94
28	137	73	81	64	115	160	2490	1560	1200	325	157	89
29	124	63	71	57	120	159	2470	1420	1100	295	134	89
30	116	67	73	51	---	159	2620	1380	1040	286	114	89
31	98	---	76	48	---	158	---	1230	---	277	108	---
TOTAL	2857	2954	2586	2569	2460	4557	34898	66340	40350	20487	5071	3216
MEAN	92.2	98.5	83.4	82.9	84.8	147	1163	2140	1345	661	164	107
MAX	151	121	94	97	120	169	4400	3290	1870	1520	277	162
MIN	66	63	70	48	54	117	158	1230	990	277	108	81
AC-FT	5670	5860	5130	5100	4880	9040	69220	131600	80030	40640	10060	6380

CAL YR 1979 TOTAL 205921 MEAN 564 MAX 3750 MIN 63 AC-FT 408400
WTR YR 1980 TOTAL 188345 MEAN 515 MAX 4400 MIN 48 AC-FT 373600

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW (CFS)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARDNESS (MG/L AS CACO3)
OCT 16...	0820	--	72	300	8.1	5.0	2	9.0	54	130
NOV 13...	0730	100	--	295	7.8	.0	5	10.8	26	110
DEC 11...	0830	71	--	280	7.4	.0	5	9.0	--	110
JAN 15...	0810	97	--	235	7.2	.0	4	8.2	35	110
FEB 25...	1600	96	--	280	7.1	.0	3	8.0	K4	97
APR 24...	0730	3850	--	320	7.3	.5	10	8.1	92	88
MAY 19...	1620	--	1910	300	7.8	12.0	20	8.1	64	95
JUN 23...	1630	--	1340	265	7.8	18.5	10	7.3	--	110
JUL 14...	1330	--	661	370	8.1	18.5	5	8.1	120	140
AUG 19...	1530	--	157	270	8.2	19.5	4	8.2	56	90
SEP 18...	1615	--	89	--	8.4	17.0	--	9.0	K4	310

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)
OCT 16...	0	40	7.8	17	.6	3.3	170	0	140
NOV 13...	0	31	8.3	17	.7	2.3	150	0	120
DEC 11...	0	32	7.1	15	.6	2.5	140	0	120
JAN 15...	0	27	9.1	14	.6	2.3	130	0	110
FEB 25...	0	27	7.0	11	.5	2.3	130	0	110
APR 24...	0	22	7.9	22	1.0	5.3	110	0	90
MAY 19...	0	26	7.2	23	1.0	2.7	120	0	98
JUN 23...	12	29	8.3	7.2	.3	2.1	120	0	98
JUL 14...	9	34	12	11	.4	1.6	160	0	130
AUG 19...	0	24	7.3	11	.5	2.2	110	0	90
SEP 18...	89	84	23	46	1.1	4.6	270	0	220

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 16...	29	.9	.6	12	191	.26	37.1	.10	.020
NOV 13...	31	1.8	.5	11	176	.24	47.5	.10	.030
DEC 11...	24	3.4	.6	13	167	.23	32.0	.00	.000
JAN 15...	21	2.1	.5	13	154	.21	40.3	.29	.020
FEB 25...	16	1.8	.4	14	141	.19	36.5	.30	.030
APR 24...	44	4.6	.4	--	--	--	--	.75	.210
MAY 19...	44	3.4	.3	11	180	.24	928	.06	.050
JUN 23...	18	1.7	.6	10	136	.19	492	.10	.030
JUL 14...	23	2.0	.5	9.7	170	.23	303	.25	.050
AUG 19...	12	4.0	.5	6.7	125	.17	53.0	.61	.060
SEP 18...	170	17	.6	15	490	.67	118	.21	.080

DATE	TIME	PCB TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)
OCT 16...	0820	.00	0	--	--	.00	.0	.0	0	.00
JUN 23...	1630	.00	0	.0	.0	.00	.0	.0	0	.00
JUL 14...	1330	--	--	--	--	--	--	--	--	--
SEP 18...	1615	--	--	--	--	--	--	--	--	--

DATE	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 16...	.0	.00	.1	.00	.0	.00	.00	.0	.00	.0
JUN 23...	.1	.00	.1	.00	.0	.00	.00	.0	.00	.0
JUL 14...	--	--	--	--	--	--	--	--	--	--
SEP 18...	--	--	--	--	--	--	--	--	--	--

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)
OCT 16...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00
JUN 23...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00
JUL 14...	--	--	--	--	--	--	--	--	--	--
SEP 18...	--	--	--	--	--	--	--	--	--	--

DATE	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL (UG/L)
OCT 16...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0
JUN 23...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0
JUL 14...	--	--	--	--	--	--	--	--	--	--
SEP 18...	--	--	--	--	--	--	--	--	--	--

DATE	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 16...	0	.00	.00	0	.00	.0	.00	0	.00	.0
JUN 23...	0	.00	.00	0	.00	.0	.00	0	.00	.0
JUL 14...	--	--	.00	0	.00	.0	.00	0	.00	.0
SEP 18...	--	--	.00	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
OCT 16...	.00	.0	.00	.0
JUN 23...	.02	.0	.00	.0
JUL 14...	.00	.0	.01	.0
SEP 18...	.00	.0	.00	.0

06622700 NORTH BRUSH CREEK NEAR SARATOGA, WY

LOCATION.--Lat 41°22'10", long 106°31'22", in NE¼SE¼NW¼ sec.8, T.16 N., R.81 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on left bank 10 ft (3 m) downstream from logging road bridge, 0.7 mi (1.1 km) downstream from Lincoln Creek, 1.6 mi (2.6 km) upstream from South Brush Creek, and 16 mi (26 km) southeast of Saratoga.

DRAINAGE AREA.--37.4 mi^2 (96.9 km^2).

PERIOD OF RECORD.--May 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,020 ft (2,444 m), from topographic map. Prior to June 17, 1971, at site 110 ft (34 m) downstream at different datum. June 17 to Sept. 21, 1971, at site 10 ft (3 m) downstream at present datum.

REMARKS.--Records good except those for winter period and period of no gage-height record, Nov. 9 to Apr. 23, which are poor. No diversion above station.

AVERAGE DISCHARGE.--20 years, 49.8 ft^3/s (1.410 m^3/s), 36,080 acre-ft/yr (44.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,120 ft^3/s (31.7 m^3/s) June 7, 1964, gage height, 5.75 ft (1.753 m), site and datum then in use, from rating curve extended above 480 ft^3/s (13.6 m^3/s); minimum daily, 4.7 ft^3/s (0.13 m^3/s) Oct. 27-29, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft^3/s (9.91 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 23	1600	460	13.0	3.06	0.933	June 4	0730	*475	13.5	3.09	0.942
May 28	1100	410	11.6	2.96	.902						

Minimum daily discharge, 5.4 ft^3/s (0.15 m^3/s) Jan. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	8.9	7.5	8.1	5.5	9.3	9.6	69	220	94	12	10
2	11	9.1	7.9	8.2	5.7	9.3	9.6	73	256	128	11	9.2
3	9.8	9.4	8.4	8.4	5.9	9.2	9.7	74	334	96	10	8.0
4	9.2	9.7	8.7	8.5	6.2	9.2	9.9	74	406	75	9.8	8.0
5	8.9	10	8.6	8.6	6.5	9.2	10	86	415	60	9.5	7.8
6	8.9	11	8.5	8.7	6.7	9.1	10	98	415	51	8.9	7.6
7	8.6	12	8.4	8.8	6.6	9.1	9.9	104	401	51	8.6	7.8
8	8.3	12	8.5	8.9	5.9	9.0	9.9	110	391	50	8.6	9.8
9	8.3	12	8.6	9.0	5.6	8.9	10	128	386	40	11	12
10	8.3	12	8.8	9.1	5.8	8.8	10	127	391	35	10	10
11	8.3	11	7.1	9.2	6.0	8.9	11	130	391	31	8.6	14
12	8.3	12	7.1	9.3	6.2	8.9	11	120	386	30	14	86
13	8.3	12	7.4	9.4	6.4	9.0	12	104	343	32	14	28
14	8.3	13	7.8	9.4	6.6	9.1	12	96	295	29	12	14
15	8.3	14	8.0	9.3	6.8	9.2	13	100	224	24	25	11
16	11	15	8.2	9.2	7.0	9.3	14	107	182	21	19	10
17	12	15	8.4	9.1	7.2	9.4	16	106	199	19	19	9.5
18	13	15	8.5	8.9	7.4	9.6	18	101	187	18	14	9.2
19	13	14	8.7	8.7	7.6	9.8	20	110	172	22	12	9.2
20	13	13	8.7	8.6	7.8	9.9	25	130	164	17	13	16
21	13	12	8.6	8.4	8.1	10	33	184	177	14	12	14
22	12	12	8.5	8.3	8.3	10	41	304	158	13	11	12
23	13	12	8.4	8.1	8.6	10	45	396	154	12	12	11
24	13	13	8.3	8.0	8.8	10	49	381	141	12	12	10
25	14	13	8.3	7.8	9.0	9.9	43	300	128	12	14	10
26	16	13	8.3	7.6	9.2	9.8	44	208	123	12	28	10
27	14	13	8.3	7.1	9.2	9.8	59	248	107	12	15	9.8
28	12	12	8.3	6.4	9.3	9.7	58	325	92	11	12	9.5
29	11	7.0	7.9	5.8	9.3	9.7	55	272	85	11	9.8	9.5
30	10	7.2	7.7	5.5	---	9.7	64	268	86	12	9.5	9.2
31	9.4	---	7.9	5.4	---	9.6	---	256	---	11	10	---
TOTAL	334.2	354.3	254.3	255.8	209.2	292.4	741.6	5189	7409	1055	395.3	402.1
MEAN	10.8	11.8	8.20	8.25	7.21	9.43	24.7	167	247	34.0	12.8	13.4
MAX	16	15	8.8	9.4	9.3	10	64	396	415	128	28	86
MIN	8.3	7.0	7.1	5.4	5.5	8.8	9.6	69	85	11	8.6	7.6
AC-FT	663	703	504	507	415	580	1470	10290	14700	2090	784	798

CAL YR 1979 TOTAL 15525.9 MEAN 42.5 MAX 450 MIN 6.5 AC-FT 30800
WTR YR 1980 TOTAL 16892.2 MEAN 46.2 MAX 415 MIN 5.4 AC-FT 33510

06622900 SOUTH BRUSH CREEK NEAR SARATOGA, WY

LOCATION.--Lat 41°20'38", long 106°31'33", in NE¼NW¼ sec.20, T.16 N., R.81 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on left bank 300 ft (91 m) upstream from culvert on State Highway 130, 1.6 mi (2.6 km) upstream from North Brush Creek, and 17 mi (27.4 km) southeast of Saratoga.

DRAINAGE AREA.--22.8 mi^2 (59.1 km^2).

PERIOD OF RECORD.--May 1960 to September 1974, May 1976 to September 1977, May 1979 to current year (no winter records since 1972).

GAGE.--Water-stage recorder. Altitude of gage is 8,100 ft (2,469 m), from topographic map.

REMARKS.--Records good. Transbasin diversion 0.3 mi (0.5 km) above station for irrigation in North Brush Creek basin.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--12 years (water years 1961-72), 31.8 ft^3/s (0.901 m^3/s), 23,040 acre-ft/yr (28.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 559 ft^3/s (15.8 m^3/s) June 10, 1965, gage height, 4.09 ft (1.247 m); minimum daily, 0.80 ft^3/s (0.023 m^3/s) Aug. 15-20, 28, 29, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 317 ft^3/s (8.98 m^3/s) June 12, gage height, 3.47 ft (1.058 m); minimum daily during period of operation, 6.5 ft^3/s (0.18 m^3/s) Sept. 5-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								45	90	74	12	8.5
2								47	90	87	12	7.9
3								49	122	76	10	7.2
4								49	183	62	7.9	6.7
5								55	209	51	13	6.5
6								66	247	46	13	6.5
7								74	205	43	13	6.5
8								79	203	51	13	7.9
9								84	239	58	12	10
10								87	237	55	13	7.0
11								87	247	53	10	10
12								92	269	54	8.2	61
13								80	241	55	8.2	24
14								73	189	49	8.5	13
15								69	161	45	16	10
16								69	138	39	14	9.2
17								70	140	39	15	7.9
18								62	150	38	10	7.2
19								70	136	39	9.2	7.0
20								94	125	35	9.2	9.8
21								127	140	31	8.8	9.2
22								173	136	29	8.2	8.2
23								197	134	25	7.9	7.5
24								192	125	22	8.2	7.2
25								171	125	19	8.8	7.2
26								152	118	16	18	7.5
27								144	96	15	11	7.5
28								146	81	14	9.2	7.2
29								123	73	13	8.2	7.0
30								102	73	13	7.5	6.7
31								99	---	12	8.5	---
TOTAL								3027	4722	1258	331.5	309.0
MEAN								97.6	157	40.6	10.7	10.3
MAX								197	269	87	18	61
MIN								45	73	12	7.5	6.5
AC-FT								6000	9370	2500	658	613

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY
(Hydrologic bench-mark station)

LOCATION.--Lat 41°01'25", long 106°49'27", in NE¼SW¼ sec.10, T.12 N., R.84 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on left bank 0.6 mi (1.0 km) upstream from Hog Park Creek and 13 mi (21 km) south of Encampment.

DRAINAGE AREA.--72.7 mi^2 (188.3 km^2). Area at mouth, 265 mi^2 (686 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,270 ft (2,521 m), from topographic map.

REMARKS.--Records fair except those for winter months, which are poor. No diversion above station.

AVERAGE DISCHARGE.--16 years, 114 ft^3/s (3.228 m^3/s), 82,590 acre-ft/yr (102 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,680 ft^3/s (47.6 m^3/s) about June 13, 1965 (gage height not determined), from slope-area measurement of peak flow; minimum daily, 9.5 ft^3/s (0.27 m^3/s) Dec. 31, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft^3/s (212 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 23	1800	836	23.7	4.10	1.250	July 2	0330	962	27.8	4.31	1.314
June 12	2100	*1,190	33.7	4.67	1.423						

Minimum daily discharge, 17 ft^3/s (0.48 m^3/s) Jan. 29, 30, Apr. 11-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	22	21	20	19	20	18	110	571	585	51	29
2	21	25	24	21	20	20	19	108	580	722	50	26
3	21	30	25	21	21	22	19	103	655	504	46	24
4	20	34	24	21	22	20	19	108	758	426	43	23
5	20	35	24	22	22	20	18	114	848	361	42	23
6	20	35	24	18	22	20	18	135	914	313	40	23
7	20	34	23	22	22	20	18	152	890	304	39	24
8	18	32	25	22	20	20	18	196	902	344	38	29
9	19	29	23	22	18	19	19	219	950	260	40	35
10	20	27	22	21	19	20	20	221	974	228	38	32
11	20	27	20	21	21	19	17	245	1020	206	35	30
12	20	26	19	21	22	19	17	226	1050	190	35	48
13	19	25	20	22	22	19	17	166	1000	180	34	43
14	19	25	22	22	22	20	17	148	992	163	38	30
15	19	25	24	23	22	20	17	154	938	138	67	26
16	21	24	24	23	22	20	17	159	854	124	54	23
17	24	26	23	24	22	19	18	163	854	114	47	22
18	25	28	23	24	22	19	20	147	866	108	39	22
19	25	28	22	25	22	20	23	182	878	100	35	21
20	25	26	22	23	21	21	26	248	830	94	38	30
21	24	27	23	23	22	21	31	340	836	86	34	29
22	23	27	23	23	21	20	38	494	830	81	32	26
23	25	26	23	24	20	20	48	670	824	77	30	24
24	26	26	21	23	21	20	60	704	818	70	33	24
25	29	24	22	23	19	20	66	548	782	68	35	24
26	33	24	22	22	21	19	70	544	794	64	48	23
27	30	23	22	21	22	19	72	562	752	61	34	22
28	25	21	22	19	20	18	76	605	630	56	30	21
29	24	18	20	17	22	20	86	620	576	54	27	22
30	23	19	20	17	---	20	99	585	595	54	25	22
31	22	---	20	18	---	20	---	605	---	55	29	---
TOTAL	702	798	692	668	611	614	1021	9581	24761	6190	1206	800
MEAN	22.6	26.6	22.3	21.5	21.1	19.8	34.0	309	825	200	38.9	26.7
MAX	33	35	25	25	22	22	99	704	1050	722	67	48
MIN	18	18	19	17	18	18	17	103	571	54	25	21
AC-FT	1390	1580	1370	1320	1210	1220	2030	19000	49110	12280	2390	1590

CAL YR 1979 TOTAL 53709 MEAN 147 MAX 1280 MIN 15 AC-FT 106500
WTR YR 1980 TOTAL 47644 MEAN 130 MAX 1050 MIN 17 AC-FT 94500

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
OCT												
26...	1230	--	38	62	8.0	3.0	9.8	19	2	7	22	2
DEC												
12...	1400	19	--	70	7.2	.0	10.6	12	4	1	27	0
FEB												
05...	1335	--	23	68	6.8	.0	10.7	5	0	<1	28	0
APR												
17...	1200	18	--	95	7.0	.0	10.6	18	<1	<1	33	9
JUN												
24...	1345	--	740	31	6.9	10.0	8.4	K1	--	25	11	0
JUL												
15...	1200	--	147	58	7.1	14.5	7.7	12	10	52	16	0
AUG												
20...	1330	--	40	75	7.5	13.0	8.0	1	4	4	24	0
SEP												
24...	1030	--	24	65	8.2	4.5	9.6	9	2	1	25	4

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT												
26...	6.8	1.1	2.3	.2	1.0	20	6.9	[illegible]	.2	11	27	42
DEC												
12...	7.9	1.7	2.6	.2	.9	28	3.1	.6	.1	13	56	47
FEB												
05...	8.2	1.8	2.4	.2	.8	28	2.5	.5	.1	13	74	47
APR												
17...	9.9	1.9	2.7	.2	.9	24	11	.3	.1	12	45	54
JUN												
24...	3.4	.6	1.2	.2	.4	12	.1	.3	.1	7.2	17	21
JUL												
15...	4.9	1.0	1.5	.2	.6	18	.7	.2	.1	8.3	40	28
AUG												
20...	7.1	1.5	1.9	.2	.7	25	2.2	.1	.1	10	48	39
SEP												
24...	7.5	1.5	2.1	.2	.8	21	7.4	.4	.1	11	56	44

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	PHOSPHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS P)	PHOSPHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS PO4)	CYANIDE TOTAL (MG/L AS CN)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT											
26...	.06	4.31	.00	--	.000	.00	--	--	--	3	.31
DEC											
12...	.06	2.41	.09	.09	.020	.06	.040	.12	--	3	.15
FEB											
05...	.06	2.92	.12	.30	.010	.03	.000	.00	--	2	.12
APR											
17...	.07	2.62	.26	.16	.020	.06	.010	.03	--	4	.19
JUN											
24...	.03	42.0	.02	.02	.010	.03	.040	.12	.00	10	20
JUL											
15...	.04	11.1	.00	.01	.010	.03	.000	.00	--	2	.79
AUG											
20...	.05	4.21	.00	.00	.010	.03	.000	.00	--	3	.32
SEP											
24...	.06	2.85	.00	.00	--	--	.000	.00	.00	2	.13

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)
JUN 24...	1345	0	0	0	9	<1	0	<1	0	0	0	<3
SEP 24...	1030	0	0	0	20	<1	0	<1	0	0	0	<3

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)
JUN 24...	4	<10	290	240	47	4	<10	<4	10	7	3
SEP 24...	7	<10	120	70	49	3	<10	<4	0	0	1

DATE	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
JUN 24...	.0	10	0	0	0	0	19	<6.0	10	5	5
SEP 24...	.0	<10	0	0	0	0	40	<6.0	20	--	<3

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
JUL 15...	1200	<.6	<.4	1.2	<.4	1.1	<.4	.04	.20	<.4	<.3

DATE	TIME	PCB TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)
AUG 20...	1330	.00	0	.0	.0	.00	.0	.0	0	.00	.1	.00

DATE	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)
AUG 20...	.3	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00	.00

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)
AUG											
20...	.0	.00	.0	.00	.0	.00	.00	.0	.00	.00	.00

DATE	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOX-APHENE, TOTAL (UG/L)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
AUG											
20...	.0	.00	.00	.00	0	0	.00	.00	.00	.00	.00

06625000 ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WY

LOCATION.--Lat 41°18'12", long 106°42'53", in NE¼NW¼ sec.3, T.15 N., R.83 W., Carbon County, Hydrologic Unit 10180002, on left bank 0.5 mi (0.8 km) upstream from mouth and 8.0 mi (12.9 km) northeast of Encampment.

DRAINAGE AREA.--265 mi^2 (686 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1940 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,970 ft (2,124 m), from topographic map. Prior to June 28, 1961, water-stage recorder at site 660 ft (201 m) upstream at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Five small reservoirs above station for irrigation, total capacity, about 400 acre-ft (0.493 hm^3). Slight regulation by Hog Park Creek Reservoir, capacity, about 2,970 acre-ft (3.66 hm^3). Diversions for irrigation of about 8,800 acres (35.6 km^2) above station. Transbasin diversion above station into Hog Park Creek (tributary to Encampment River) from North Fork Little Snake River for municipal, industrial, and irrigation uses began September 1964.

AVERAGE DISCHARGE.--40 years, 241 ft^3/s (6.83 m^3/s), 174,600 acre-ft/yr (215 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,510 ft^3/s (128 m^3/s) June 1, 1943, gage height, 10.25 ft (3.124 m), present datum; maximum gage height, 10.33 ft (3.149 m) June 4, 1952, present datum; minimum daily discharge, 5.2 ft^3/s (0.15 m^3/s) Aug. 15, 16, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,700 ft^3/s (48.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 24	0330	1,960	55.5	5.32	1.622
June 12	0530	*2,390	67.7	5.84	1.780

Minimum daily discharge, 12 ft^3/s (0.34 m^3/s) Oct. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	29	62	64	31	45	42	445	1330	917	55	41
2	25	35	66	65	33	46	42	436	1270	1190	61	42
3	25	48	71	67	36	48	53	445	1320	973	55	40
4	22	58	75	70	38	49	64	470	1530	750	51	39
5	22	61	74	72	40	49	81	475	1750	638	48	38
6	22	63	74	71	39	49	102	525	1840	555	44	38
7	21	64	74	70	38	48	77	599	1840	495	45	38
8	20	64	76	70	36	48	70	720	1790	588	47	40
9	19	62	78	70	33	50	82	810	1820	470	45	48
10	19	60	77	72	34	51	94	875	1900	374	46	51
11	16	58	58	74	35	52	77	973	2030	332	44	48
12	15	58	60	76	36	53	67	994	2160	310	42	52
13	14	60	62	78	38	50	67	792	2090	319	42	77
14	13	62	65	80	40	52	77	687	1950	283	44	66
15	12	64	67	81	41	54	126	654	1840	245	55	51
16	15	65	70	79	42	55	157	643	1700	221	72	42
17	16	66	73	78	43	56	157	692	1600	202	66	39
18	16	64	75	76	44	56	167	616	1500	184	52	37
19	14	63	76	74	45	57	140	643	1440	160	45	35
20	46	61	76	73	45	57	140	786	1390	154	42	47
21	64	58	74	72	45	56	160	910	1430	148	41	46
22	52	57	72	73	45	56	206	1240	1380	128	39	44
23	48	60	69	74	44	55	254	1590	1350	118	38	41
24	51	66	67	74	42	54	314	1860	1300	106	38	38
25	49	72	68	72	41	53	279	1720	1280	104	41	37
26	50	74	69	66	43	51	274	1440	1250	96	59	37
27	51	70	68	57	46	49	288	1360	1220	79	57	36
28	43	66	66	44	48	48	301	1400	1020	72	54	35
29	43	56	64	34	47	46	337	1430	882	67	44	34
30	33	58	62	31	---	44	407	1390	875	55	41	33
31	28	---	62	30	---	43	---	1380	---	54	40	---
TOTAL	911	1802	2150	2087	1168	1580	4702	29000	46077	10387	1493	1290
MEAN	29.4	60.1	69.4	67.3	40.3	51.0	157	935	1536	335	48.2	43.0
MAX	64	74	78	81	48	57	407	1860	2160	1190	72	77
MIN	12	29	58	30	31	43	42	436	875	54	38	33
AC-FT	1810	3570	4260	4140	2320	3130	9330	57520	91390	20600	2960	2560

CAL YR 1979 TOTAL 113577 MEAN 311 MAX 2940 MIN 12 AC-FT 225300
WTR YR 1980 TOTAL 102647 MEAN 280 MAX 2160 MIN 12 AC-FT 203600

06625000 ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT 16...	1000	--	16	385	7.9	8.0	150	11
NOV 13...	0900	60	--	310	7.6	1.0	110	3
DEC 11...	1000	58	--	260	7.6	.5	120	30
JAN 15...	0930	81	--	260	7.7	1.0	100	20
FEB 26...	0830	43	--	290	7.5	.0	94	4
APR 24...	0900	--	310	140	7.3	3.0	20	0
MAY 20...	0930	--	768	108	7.2	5.0	35	7
JUN 19...	1800	--	1390	85	7.2	9.0	33	5
JUL 16...	0830	--	221	260	7.6	13.0	100	10
AUG 25...	1300	--	40	500	7.6	16.0	230	66
SEP 19...	1100	--	35	520	8.2	12.0	210	47

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 16...	50	7.1	22	.8	3.5	170	0	140	44
NOV 13...	36	5.2	19	.8	2.8	130	0	110	42
DEC 11...	33	4.2	16	.7	2.5	110	0	90	29
JAN 15...	30	6.7	15	.6	5.3	100	0	82	36
FEB 26...	30	4.7	14	.6	2.3	110	0	90	25
APR 24...	12	2.7	5.0	.3	1.5	49	0	40	6.6
MAY 20...	10	2.3	3.3	.2	.8	34	0	28	12
JUN 19...	8.2	2.9	3.0	.2	1.5	34	0	28	13
JUL 16...	32	4.9	11	.5	1.9	110	0	90	30
AUG 25...	67	14	21	.6	3.6	200	0	160	89
SEP 19...	67	9.0	26	.8	3.2	180	9	160	89

06625000 ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 16...	7.8	.5	28	247	.34	10.7	.30	.020
NOV 13...	8.5	.4	42	219	.30	35.5	.20	.020
DEC 11...	7.8	.4	21	167	.23	26.2	.09	.010
JAN 15...	8.3	.4	18	172	.23	37.6	.74	.100
FEB 26...	5.9	.3	19	153	.21	17.8	.28	.020
APR 24...	1.1	.3	13	67	.09	56.1	.10	.030
MAY 20...	1.0	.2	12	58	.08	120	.00	.010
JUN 19...	1.0	.3	9.8	56	.08	210	.01	.130
JUL 16...	5.7	.5	21	160	.22	95.5	.11	.030
AUG 25...	13	.6	39	350	.48	37.8	.03	.020
SEP 19...	14	.5	22	330	.45	31.2	.06	.070

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE, WATER (DEG C)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 16...	1000	16	8.0	--	0	--	.0	--	0	--	.0
MAY 20...	0930	768	5.0	.00	<0	<.00	--	.00	0	.00	.0
JUN 24...	1745	1150	--	.00	0	.00	.0	.00	0	.00	.0
JUL 16...	0830	221	13.0	.00	0	.00	.0	.00	0	.00	.0
AUG 25...	1300	40	16.0	.00	0	.00	.0	.00	0	.00	.0
SEP 19...	1100	35	12.0	--	0	--	.0	--	0	--	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
OCT 16...	.00	.0	.00	.0
MAY 20...	.00	.0	.00	.0
JUN 24...	.00	.0	.01	.0
JUL 16...	.00	.0	.00	.0
AUG 25...	.00	.0	.00	.0
SEP 19...	--	.0	--	.0

06628800 SAGE CREEK NEAR SARATOGA, WY

LOCATION.--Lat 41°34'53", long 106°59'17", in SE¼NE¼NW¼ sec.32, T.19 N., R.85 W., Carbon County, Hydrologic Unit 10180002, on right bank 300 ft (91 m) upstream from private farm bridge, 1.1 mi (1.8 km) downstream from Little Sage Creek, 3.6 mi (5.8 km) upstream from mouth, and 13 mi (21 km) northwest of Saratoga.

DRAINAGE AREA.--263 mi^2 (681 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1973 to current year (no winter records).

GAGE.--Water-stage recorder. Altitude of gage is 6,650 ft (2,027 m), from topographic map.

REMARKS.--Records poor. Several small reservoirs above station, total capacity, about 3,000 acre-ft (3.70 hm^3). Diversions for irrigation of about 1,560 acres (6.31 km^2) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,970 ft^3/s (84.1 m^3/s) May 4, 1980, gage height, 12.03 ft (3.667 m); no flow some days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,970 ft^3/s (84.1 m^3/s) May 4, gage height, 12.03 ft (3.667 m); minimum daily during period of operation, 0.35 ft^3/s (0.010 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.35						7.0	128	51	10	5.7	2.8
2	.55						8.0	119	48	11	5.6	2.8
3	.60						9.0	151	44	19	5.5	2.6
4	.68						10	700	41	18	5.1	2.7
5	.84						11	200	39	13	4.5	2.6
6	.92						12	190	37	11	4.5	2.5
7	.92						12	190	36	10	4.1	2.7
8	.92						13	210	34	10	3.9	2.5
9	.92						13	230	33	11	3.7	2.5
10	.92						14	245	32	9.8	4.0	2.3
11	1.1						13	260	31	8.8	4.1	2.2
12	1.2						12	220	30	8.4	4.8	2.2
13	1.3						15	150	30	8.4	5.0	2.1
14	1.6						20	90	29	8.4	4.2	2.1
15	1.9						25	70	28	7.9	5.0	1.6
16	2.3						35	80	27	7.1	6.6	1.6
17	2.8						50	100	26	6.7	7.0	1.1
18	3.5						80	140	25	6.3	5.7	.68
19	4.3						120	120	24	6.0	5.5	.69
20	3.9						150	105	23	6.1	4.7	.55
21	3.7						200	97	22	5.7	4.3	.68
22	3.8						195	99	20	5.4	4.2	.60
23	3.9						190	103	18	5.2	4.5	.55
24	3.2						180	110	15	5.9	7.4	.55
25	3.6						150	106	14	6.1	7.4	.55
26	3.1						112	99	12	5.7	225	.76
27	3.0						92	86	11	5.2	16	.92
28	2.8						84	76	11	4.8	6.0	1.2
29	2.6						93	67	10	4.5	4.1	1.2
30	2.3						108	60	11	4.3	3.4	1.2
31	2.0						---	56	---	4.5	3.1	---
TOTAL	65.52						2033.0	4657	812	254.2	384.6	49.03
MEAN	2.11						67.8	150	27.1	8.20	12.4	1.63
MAX	4.3						200	700	51	19	225	2.8
MIN	.35						7.0	56	10	4.3	3.1	.55
AC-FT	130						4030	9240	1610	504	763	97

06628800 SAGE CREEK NEAR SARATOGA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
OCT								
23...	1600	--	3.9	--	--	5.0	1000	750
APR								
01...	1000	7.0	--	--	--	.0	720	500
25...	1400	--	156	--	--	10.5	550	410
29...	0900	--	84	--	--	9.5	450	320
MAY								
20...	1630	--	104	--	--	16.0	410	260
JUN								
19...	1100	--	25	895	8.6	15.5	390	230
JUL								
16...	1730	--	7.0	1400	8.4	23.0	520	360
AUG								
26...	1345	--	454	1070	8.0	12.5	430	310
SEP								
19...	1545	--	.60	2800	8.3	14.0	1300	1100

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
OCT									
23...	190	130	290	4.0	9.0	310	0	250	1400
APR									
01...	150	83	180	2.9	7.1	270	0	220	840
25...	110	67	170	3.2	6.2	170	0	140	700
29...	88	55	110	2.3	5.6	160	0	130	510
MAY									
20...	84	48	69	1.5	4.0	180	0	150	360
JUN									
19...	98	35	73	1.6	4.2	200	0	160	350
JUL									
16...	100	64	78	1.5	5.4	180	9	160	460
AUG									
26...	120	32	84	1.8	10	150	0	120	490
SEP									
19...	240	160	290	3.6	6.9	210	6	180	1500

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT								
23...	37	.8	8.0	2220	3.02	23.4	.40	.090
APR								
01...	25	.6	11	1430	1.94	27.0	.48	.180
25...	19	.4	5.4	1160	1.58	489	.18	.960
29...	13	.5	7.9	871	1.18	198	.45	1.210
MAY								
20...	10	.5	13	680	.92	191	.03	.050
JUN								
19...	7.1	1.0	16	680	.92	45.9	1.2	.060
JUL								
16...	11	.5	12	830	1.13	15.7	3.5	.040
AUG								
26...	12	.5	8.4	830	1.13	1020	.89	.170
SEP								
19...	43	.7	.0	2400	3.26	3.89	13	.070

06628800 SAGE CREEK NEAR SARATOGA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM
OCT											
23...	1600	5.0	--	3.9	228	2.4	--	--	--	--	--
APR											
01...	1000	.0	7.0	--	292	5.5	--	--	--	--	--
25...	1400	10.5	--	156	--	--	41	62	96	99	100
29...	0900	9.5	--	84	--	--	40	62	93	100	--
MAY											
20...	1630	16.0	--	104	--	--	48	67	93	99	100
JUN											
19...	1100	15.5	--	25	112	7.6	--	--	--	--	--
JUL											
16...	1730	23.0	--	7.0	40	.76	79	96	99	100	--
SEP											
19...	1545	14.0	--	.60	29	.05	--	--	--	--	--

06628900 PASS CREEK NEAR ELK MOUNTAIN, WY

LOCATION.--Lat 41°35'10", long 106°36'37", in SW¼SW¼ sec.27, T.19 N., R.82 W., Carbon County, Hydrologic Unit 10180002, on right bank 235 ft (72 m) downstream from Lone Tree Creek, 1,000 ft (305 m) upstream from Brush Creek, 12 mi (19 km) southwest of Elk Mountain, and 14 mi (23 km) northeast of Saratoga.

DRAINAGE AREA.--91.5 mi^2 (237.0 km^2). Area at mouth, 279 mi^2 (723 km^2).

PERIOD OF RECORD.--April 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,230 ft (2,204 m), from topographic map. Prior to Oct. 6, 1966, 15 ft (5 m) downstream at present datum.

REMARKS.--Records fair except those for winter period and periods of no gage-height record, Dec. 7-12, Jan. 27 to Feb. 27, Mar. 20 to Apr. 23, May 6-16, which are poor. Diversions for irrigation of about 6,300 acres (25.5 km^2) above station. Diversion to Kerr ditch 7.5 mi (12.1 km) upstream.

AVERAGE DISCHARGE.--23 years, 40.3 ft^3/s (1.141 m^3/s), 29,200 acre-ft/yr (36.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,180 ft^3/s (33.4 m^3/s) May 9, 1973, gage height, 6.27 ft (1.911 m); minimum daily, 1.5 ft^3/s (0.042 m^3/s) Sept. 11, 12, 1959.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 300 ft^3/s (8.50 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 23	1830	538	15.2	3.94	1.201	aMay 9	unknown	509	14.4	b3.89	1.186
Apr. 29	1000	*640	18.1	4.35	1.326	May 23	0330	444	12.6	3.70	1.128

a-about.
b-from floodmark.

Minimum daily discharge, 2.6 ft^3/s (0.074 m^3/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	6.2	4.5	6.7	3.7	11	11	254	160	33	13	5.5
2	3.2	6.9	5.1	7.0	4.1	10	12	232	168	41	15	4.3
3	2.9	7.6	6.5	7.3	4.6	10	12	240	178	70	13	3.9
4	2.6	8.5	8.7	7.6	4.9	10	13	238	198	59	11	3.5
5	2.9	9.4	9.0	7.9	4.9	10	13	306	192	39	11	3.9
6	2.9	10	8.9	8.2	4.7	8.0	14	360	180	26	11	3.5
7	3.2	10	8.8	8.6	4.2	6.2	15	380	160	25	10	3.2
8	2.9	11	9.1	8.9	4.0	5.6	15	400	151	33	10	3.5
9	2.9	10	9.8	9.3	4.0	5.2	16	420	147	30	11	8.0
10	2.9	9.6	9.8	9.7	4.2	5.0	16	400	151	23	12	7.0
11	3.2	8.7	5.0	10	4.4	4.8	16	400	153	18	10	6.0
12	3.2	11	5.4	10	4.6	4.7	17	350	113	14	9.4	30
13	3.5	13	5.9	11	5.0	5.3	17	250	88	15	9.4	20
14	3.5	12	6.5	11	5.4	7.5	19	190	88	14	8.7	8.7
15	2.9	13	6.9	11	6.0	7.5	21	200	73	13	14	5.5
16	7.5	13	7.5	11	6.6	7.7	25	220	68	14	18	5.1
17	8.0	12	8.1	10	7.4	7.9	29	222	62	17	18	4.3
18	8.0	10	8.7	10	8.2	8.3	36	172	59	19	12	3.9
19	7.5	8.0	9.4	9.8	9.4	9.0	40	180	63	24	9.4	3.5
20	16	6.0	9.4	9.6	10	9.9	100	246	66	23	10	20
21	15	5.3	9.4	9.6	11	10	200	283	56	21	11	15
22	12	5.0	8.9	9.8	11	11	300	333	56	21	10	12
23	9.4	5.5	8.4	10	11	11	400	402	45	18	11	12
24	11	6.1	7.6	10	10	12	344	356	39	18	18	12
25	14	6.5	8.2	9.3	10	12	256	291	35	20	16	11
26	14	6.4	8.7	8.4	11	12	244	216	30	19	30	10
27	11	5.7	8.9	7.2	11	12	238	160	32	17	19	10
28	8.0	4.8	8.5	5.8	12	12	258	164	30	15	11	10
29	8.7	3.9	6.0	4.7	11	12	282	160	41	13	7.0	9.4
30	7.5	4.0	6.2	3.9	---	11	236	131	39	12	6.0	8.7
31	6.6	---	6.4	3.5	---	11	---	141	---	14	6.5	---
TOTAL	210.8	249.1	240.2	266.8	208.3	279.6	3215	8297	2921	738	381.4	263.4
MEAN	6.80	8.30	7.75	8.61	7.18	9.02	107	268	97.4	23.8	12.3	8.78
MAX	16	13	9.8	11	12	12	400	420	198	70	30	30
MIN	2.6	3.9	4.5	3.5	3.7	4.7	11	131	30	12	6.0	3.2
AC-FT	418	494	476	529	413	555	6380	16460	5790	1460	757	522

CAL YR 1979 TOTAL 13165.3 MEAN 36.1 MAX 295 MIN 2.6 AC-FT 26110
WTR YR 1980 TOTAL 17270.6 MEAN 47.2 MAX 420 MIN 2.6 AC-FT 34260

06630000 NORTH PLATTE RIVER ABOVE SEMINOE RESERVOIR, NEAR SINCLAIR, WY

LOCATION.--Lat 41°52'20", long 107°03'25", in SW¼SW¼ sec.13, T.22 N., R.86 W., Carbon County, Hydrologic Unit 10180002, on left bank 6.5 mi (10.5 km) northeast of Sinclair and 14 mi (22.5 km) upstream from high-water line of Seminoe Reservoir at elevation 6,357 ft (1,938 m).

DRAINAGE AREA.--4,175 mi^2 (10,813 km^2), of which 114 mi^2 (295 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1939 to current year. Prior to October 1943, published as "near Parco."

REVISED RECORDS.--WDR-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,400.75 ft (1,950.949 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 215,000 acres (870 km^2) above station. Transbasin diversions above station.

COOPERATION.--Six discharge measurements furnished by Water and Power Resources Service, and ten measurements furnished by Wyoming State Engineer's office.

AVERAGE DISCHARGE.--41 years, 1,112 ft^3/s (31.49 m^3/s), 805,600 acre-ft/yr (993 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,500 ft^3/s (411 m^3/s) June 15, 1957, gage height, 9.72 ft (2.963 m); minimum daily, 70 ft^3/s (1.98 m^3/s) Sept. 17, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,270 ft^3/s (234 m^3/s) May 25, gage height, 7.41 ft (2.259 m); minimum daily, 174 ft^3/s (4.93 m^3/s) Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	259	340	230	325	240	375	500	4580	5100	2460	486	238
2	238	300	265	350	285	395	490	4650	4830	2680	478	245
3	224	295	330	375	315	425	460	4410	4540	3500	470	238
4	224	350	445	400	300	450	430	4770	4510	3200	446	231
5	252	415	440	425	285	465	486	4440	4790	2760	414	217
6	245	425	435	440	255	480	752	4360	5190	2330	374	192
7	231	420	440	450	230	480	833	4680	5510	1980	358	174
8	231	410	445	460	210	470	617	5010	5510	1830	343	180
9	224	405	460	465	205	460	526	5740	5600	1900	336	186
10	224	395	440	470	215	470	608	6330	5780	1770	329	217
11	217	380	250	495	235	480	707	6490	6090	1520	322	259
12	210	370	270	525	255	495	582	7030	6370	1400	301	294
13	210	380	290	550	275	520	486	6950	6530	1280	287	329
14	204	390	310	575	300	560	494	5960	6290	1270	266	446
15	204	405	325	595	320	595	671	5100	6000	1210	266	374
16	210	415	340	615	345	600	1150	4540	5460	1120	287	329
17	210	410	350	605	370	595	1490	4490	4830	950	350	294
18	245	375	360	585	390	590	1420	4810	4440	842	382	266
19	245	335	365	540	405	580	1620	4720	4300	824	374	238
20	287	265	365	510	410	590	1930	4830	4300	833	336	231
21	366	210	360	480	410	600	1960	4950	4220	824	308	252
22	446	230	355	470	405	625	2260	5330	4070	779	287	259
23	422	280	340	465	390	650	2860	6270	3900	743	266	259
24	422	350	325	460	380	670	3920	7450	3730	689	259	273
25	406	460	330	455	375	695	4790	8090	3520	653	259	266
26	406	480	340	440	385	660	5580	7810	3320	617	280	259
27	422	415	350	415	410	620	5290	6910	3200	582	470	259
28	446	300	340	350	410	570	4740	6190	3030	566	343	252
29	462	205	310	230	405	540	4240	5890	2790	526	329	252
30	430	210	290	180	---	520	4340	5820	2550	518	301	238
31	406	---	300	205	---	510	---	5420	---	494	273	---
TOTAL	9228	10620	10795	13905	9415	16735	56232	174020	140300	42650	10580	7747
MEAN	298	354	348	449	325	540	1874	5614	4677	1376	341	258
MAX	462	480	460	615	410	695	5580	8090	6530	3500	486	446
MIN	204	205	230	180	205	375	430	4360	2550	494	259	174
AC-FT	18300	21060	21410	27580	18670	33190	111500	345200	278300	84600	20990	15370

CAL YR 1979 TOTAL 494064 MEAN 1354 MAX 8050 MIN 204 AC-FT 980000
WTR YR 1980 TOTAL 502227 MEAN 1372 MAX 8090 MIN 174 AC-FT 996200

06630000 NORTH PLATTE RIVER ABOVE SEMINOE RESERVOIR, NEAR SINCLAIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: March 1978 to October 1978.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 16...	1200	--	210	530	8.4	9.0	4	7.8	K14	200
NOV 13...	1045	380	--	520	8.1	.5	5	11.7	K2	190
DEC 11...	1200	250	--	510	8.1	.0	3	11.2	K5	210
JAN 15...	1130	595	--	510	8.1	.5	15	11.6	21	200
FEB 26...	1040	385	--	615	7.9	.5	6	12.0	K2	210
APR 25...	0830	--	5200	418	7.6	4.5	65	9.8	88	130
MAY 21...	1050	--	4740	328	7.9	12.5	20	8.3	130	110
JUN 25...	0800	--	3470	280	7.7	15.0	6	--	--	93
JUL 17...	1215	--	930	390	8.6	20.5	3	8.5	23	160
AUG 26...	1630	--	280	440	8.1	18.5	30	7.9	46	180
SEP 23...	1000	--	259	425	8.3	9.5	--	9.5	12	210

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
OCT 16...	61	53	16	34	1.1	3.8	170	0	140
NOV 13...	51	53	15	33	1.0	3.3	170	0	140
DEC 11...	79	60	14	33	1.0	3.3	160	0	130
JAN 15...	72	50	19	36	1.1	3.5	160	0	130
FEB 26...	79	53	20	39	1.2	4.0	160	0	130
APR 25...	32	30	13	27	1.0	4.7	120	0	98
MAY 21...	34	28	9.6	13	.5	2.3	93	0	76
JUN 25...	18	26	6.8	8.0	.4	2.1	92	0	75
JUL 17...	32	36	17	14	.5	2.5	130	3	130
AUG 26...	57	46	16	28	.9	2.2	150	0	120
SEP 23...	79	57	15	35	1.1	1.8	160	0	130

06630000 NORTH PLATTE RIVER ABOVE SEMINOE RESERVOIR, NEAR SINCLAIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 16...	110	14	.6	11	323	.44	183	.00	.000
NOV 13...	120	10	.5	16	335	.46	344	.00	.020
DEC 11...	120	10	.5	17	336	.46	227	.00	.000
JAN 15...	140	11	.5	15	357	.49	574	.61	.040
FEB 26...	140	13	.5	18	365	.50	379	1.5	.050
APR 25...	87	5.4	.4	.5	230	.31	3230	.70	.470
MAY 21...	63	4.1	.4	12	180	.24	2300	.04	.130
JUN 25...	30	2.2	.5	12	130	.18	1220	.01	.030
JUL 17...	60	4.9	.5	7.0	210	.29	527	.00	.060
AUG 26...	100	11	.7	15	290	.39	219	.00	.070
SEP 23...	130	13	.6	12	340	.46	238	.00	.040

DATE	TIME	PCB TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)
JUN 25...	0800	.00	0	.0	.0	.00	.0	.0	0	.00

DATE	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN 25...	.1	.00	.2	.00	.0	.00	.00	.0	.00	.0

DATE	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)
JUN 25...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00

06630000 NORTH PLATTE RIVER ABOVE SEMINOE RESERVOIR, NEAR SINCLAIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOX-APHENE, TOTAL (UG/L)
JUN 25...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0

DATE	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JUN 25...	0	.00	.00	0	.00	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA-TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA-TERIAL (UG/KG)
JUN 25...	.00	.0	.02	.0

06630300 BIG DITCH NEAR COYOTE SPRINGS, WY

LOCATION.--Lat 41°56'07", long 106°48'01", in SE¼SE¼NW¼ sec.30, T.23 N., R.83 W., Carbon County, Hydrologic Unit 10180003, on right bank 140 ft (43 m) downstream from Medicine Bow Mine Company road, 1.2 mi (1.9 km) upstream from high-water line of Seminoe Reservoir at elevation 6,358 ft (1,938 m), 11 mi (18 km) north of Coyote Springs, and 14 mi (23 km) west of Hanna.

DRAINAGE AREA.--110 mi² (285 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,380 ft (1,945 m), from topographic map.

REMARKS.--Records poor. Strip mining operation 2 mi (3 km) upstream pumps water into a stilling pond which empties into Big Ditch. This pumping occurs at irregular intervals, depending on dewatering needs of the mine.

AVERAGE DISCHARGE.--5 years, 1.08 ft³/s (0.031 m³/s), 782 acre-ft/yr (0.964 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 396 ft³/s (11.2 m³/s) July 16, 1975, gage height, 7.37 ft (2.246 m), on basis of flow-through-culverts measurement of peak flow; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 146 ft³/s (4.13 m³/s) Feb. 28, gage height, 6.08 ft (1.853 m), from floodmarks, from rating curve extended above 14 ft³/s (0.40 m³/s) on basis of flow-through-culverts measurement at gage height 7.37 ft (2.246 m) and step-backwater analysis; no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	8.0	5.3	8.7	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	2.0	4.6	11	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	2.0	7.5	9.8	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	3.7	12	6.7	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	6.4	14	8.7	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	8.3	20	9.1	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	8.5	18	8.3	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	1.9	12	5.8	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	1.7	8.0	4.4	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	13	12	7.9	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	24	10	6.2	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	12	8.5	16	.00	.00	.00	.00
13	.00	.00	.00	.30	.00	4.7	10	26	.00	.00	.00	.00
14	.00	.00	.00	2.1	.00	35	25	20	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	40	35	14	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	37	31	9.4	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	38	25	8.3	.00	.00	.00	.00
18	.00	.00	.00	.00	.02	14	28	6.4	.00	.00	.00	.00
19	.00	.00	.00	.00	16	10	26	3.7	.00	.00	.00	.00
20	.00	.00	.00	.00	24	8.7	23	3.4	.00	.00	.00	.00
21	.00	.00	.00	.00	19	24	22	2.7	.00	.00	.00	.00
22	.00	.00	.00	.00	17	22	18	1.5	.00	.00	.00	.00
23	.00	.00	.00	.00	7.4	13	33	1.0	.00	.00	1.8	.00
24	.00	.00	.00	.00	5.0	16	46	.60	.00	.00	.91	.00
25	.00	.00	.00	.00	2.9	18	13	1.2	.00	.00	1.6	.00
26	.00	.00	.00	.00	8.7	18	12	1.0	.00	.00	1.7	.00
27	.00	.00	.00	.00	46	9.8	16	1.0	.00	.00	.00	.00
28	.00	.00	.00	.00	100	7.7	14	.50	.00	.00	.00	.00
29	.00	.00	.00	.00	40	5.0	14	.25	.00	.00	.00	.00
30	.00	.00	.00	.00	---	5.8	11	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	4.2	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	2.40	286.02	422.4	533.9	203.55	.00	.00	6.01	.00
MEAN	.000	.000	.000	.077	9.86	13.6	17.8	6.57	.000	.000	.19	.000
MAX	.00	.00	.00	2.1	100	40	46	26	.00	.00	1.8	.00
MIN	.00	.00	.00	.00	.00	1.7	4.6	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	4.8	567	838	1060	404	.00	.00	12	.00

CAL YR 1979 TOTAL 148.17 MEAN .41 MAX 9.2 MIN .00 AC-FT 294
WTR YR 1980 TOTAL 1454.28 MEAN 3.97 MAX 100 MIN .00 AC-FT 2880

06630300 BIG DITCH NEAR COYOTE SPRINGS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
FEB 26...	1845	17	1090	8.2	.0	11.3	320	190	47	48	120
MAR 26...	1245	17	1400	8.4	4.0	--	510	370	89	70	130
APR 23...	1130	39	1370	8.6	11.0	9.0	430	240	79	57	180
MAY 15...	1530	14	2200	8.6	12.5	6.6	820	600	130	120	280

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
FEB 26...	2.9	7.3	--	--	130	390	14	.3	3.1	708	.96
MAR 26...	2.5	6.9	--	--	140	610	14	.2	4.3	1010	1.37
APR 23...	3.8	6.9	250	0	190	610	14	.4	5.2	1070	1.46
MAY 15...	4.3	9.3	--	--	220	1200	28	.4	3.0	1910	2.60

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
FEB 26...	32.5	.67	--	.460	.56	2.3	2.8	3.5	15	.070	.21
MAR 26...	46.4	.97	--	.950	1.2	2.3	3.2	4.2	18	1.500	4.6
APR 23...	113	.81	.73	.340	.41	3.9	4.2	5.0	22	2.200	6.7
MAY 15...	72.2	.87	--	.140	.17	1.8	1.9	2.8	12	.500	1.5

06630300 BIG DITCH NEAR COYOTE SPRINGS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
FEB 26...	1845	--	--	--	--	--	--	--	--	--	110	--
MAR 26...	1245	16000	16000	330	5	4	1	0	0	0	120	1
APR 23...	1130	14000	14000	40	7	6	1	0	--	<1	110	2
MAY 15...	1530	5900	--	--	5	--	--	0	--	--	180	0

DATE	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
FEB 26...	--	--	--	--	--	--	--	--	--	--	140	--
MAR 26...	1	0	40	40	0	39	34	5	36000	36000	260	31
APR 23...	--	<1	30	30	0	45	41	4	39000	39000	40	39
MAY 15...	--	--	20	--	--	24	--	--	18000	14000	4000	23

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 26...	31	0	40	30	10	1000	950	50	.1	.1	.0	4
APR 23...	34	5	60	40	20	820	810	6	.1	.0	.2	2
MAY 15...	--	--	40	--	--	600	--	--	.2	--	--	4

DATE	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 26...	2	2	36	36	0	2	1	1	5.0	200	140	60
APR 23...	0	13	37	36	1	2	1	1	1.0	300	250	50
MAY 15...	--	--	25	--	--	2	--	--	--	120	--	--

06630300 BIG DITCH NEAR COYOTE SPRINGS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
MAR 26...	1245	<18	47	7.6	42	7.8	43	.16	8.8	<12	32

DATE	TIME	TEMPER- ATURE, WATER (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM
FEB 26...	1845	.0	17	--	--	49	80	97	98	100	--
MAR 26...	1245	4.0	17	--	--	17	25	56	84	99	100
APR 23...	1130	11.0	39	--	--	27	39	68	85	99	100
MAY 15...	1530	12.5	14	1180	45	--	--	--	--	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
FEB 26...	--	--	--	--	--	--	--	--	--	--
MAR 26...	7	16	54	71	72	75	80	87	95	100
APR 23...	--	--	--	--	--	--	--	--	--	--
MAY 15...	--	--	--	--	--	--	--	--	--	--

06630330 NORTH DITCH NEAR COYOTE SPRINGS, WY

LOCATION.--Lat 41°56'44", long 106°48'06", in NE¼SE¼SW¼ sec.19, T.23 N., R.83 W., Carbon County, Hydrologic Unit 10180003, on right bank 0.8 mi (1.3 km) upstream from high-water line of Seminoe Reservoir at elevation 6,358 ft (1,938 m) and 11 mi (18 km) north of Coyote Springs.

DRAINAGE AREA.--22.6 mi^2 (58.5 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1976 to current year.

REVISED RECORDS.--WDR WY-78-1: 1976, 1977.

GAGE.--Water-stage recorder. Altitude of gage is 6,380 ft (1,945 m), from topographic map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 89 ft^3/s (2.52 m^3/s) about Apr. 15, 1980, gage height, 3.12 ft (0.951 m), from rating curve extended above 15 ft^3/s (0.42 m^3/s) on basis of step-backwater analysis; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 89 ft^3/s (2.52 m^3/s) about Apr. 15, gage height, 3.12 ft (0.951 m); from rating curve extended as explained above; no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	10	2.0	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	7.1	1.5	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	7.1	2.8	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	13	5.2	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	12	10	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	15	15	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	12	10	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	1.0	7.0	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.80	5.0	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	5.0	8.0	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	20	6.8	.10	.00	.00	.00	.00
12	.00	.00	.00	.00	6.1	10	6.0	.80	.00	.00	.00	.00
13	.00	.00	.00	.00	12	5.0	11	1.0	.00	.00	.00	.00
14	.00	.00	.00	.01	5.4	14	18	.07	.00	.00	.00	.00
15	.00	.00	.00	.30	2.0	35	30	.00	.00	.00	.00	.00
16	.00	.00	.00	.09	.79	30	16	.00	.00	.00	.00	.00
17	.00	.00	.00	.01	4.3	32	10	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	31	10	12	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	21	8.0	8.0	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	20	7.0	5.0	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	29	20	.50	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	20	18	.05	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	16	8.0	.00	.00	.00	.00	7.3	.00
24	.00	.00	.00	.00	8.0	9.2	.00	.00	.00	.00	4.8	.00
25	.00	.00	.00	.00	5.0	10	.00	.00	.00	.00	3.7	.00
26	.00	.00	.00	.00	9.6	.64	.00	.00	.00	.00	1.4	.00
27	.00	.00	.00	.00	19	.15	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	23	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	16	1.0	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.90	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.80	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.41	248.19	322.69	189.85	1.97	.00	.00	17.20	.00
MEAN	.000	.000	.000	.013	8.56	10.4	6.33	.064	.000	.000	.55	.000
MAX	.00	.00	.00	.30	31	35	30	1.0	.00	.00	7.3	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.8	492	640	377	3.9	.00	.00	34	.00

CAL YR 1979 TOTAL 39.87 MEAN .11 MAX 9.4 MIN .00 AC-FT 79
WTR YR 1980 TOTAL 780.31 MEAN 2.13 MAX 35 MIN .00 AC-FT 1550

06630330 NORTH DITCH NEAR COYOTE SPRINGS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
JAN 15...	1000	.57	390	--	.0	--	100	41	25	10
FEB 26...	1650	12	282	7.7	.0	10.7	96	39	22	10
MAR 26...	1030	.30	350	9.1	2.5	--	85	32	22	7.2

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
JAN 15...	48	2.1	5.0	63	150	8.8	.2	4.8	290	.39
FEB 26...	24	1.1	3.4	57	77	4.5	.3	2.6	179	.24
MAR 26...	36	1.7	3.2	53	110	2.7	.1	3.5	217	.30

DATE	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)
JAN 15...	.45	1.8	--	--	--	--	--	--	.590	1.8
FEB 26...	5.90	.69	.470	.57	17	17	18	78	.060	.18
MAR 26...	.18	.29	.130	.16	1.8	1.9	2.2	9.7	.760	2.3

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JAN 15...	1000	--	--	--	--	--	--	--	--	--	160	--
FEB 26...	1650	--	--	--	--	--	--	--	--	--	100	--
MAR 26...	1030	18000	18000	50	4	3	1	0	0	0	60	1

06630330 NORTH DITCH NEAR COYOTE SPRINGS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
JAN												
15...	--	--	--	--	--	--	--	--	--	--	260	--
FEB												
26...	--	--	--	--	--	--	--	--	--	--	410	--
MAR												
26...	1	0	30	30	0	28	24	4	23000	23000	170	21

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)
JAN												
15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
26...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
26...	21	0	30	30	0	400	390	10	.2	.1	.1	3

DATE	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
JAN												
15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
26...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
26...	3	0	25	25	0	2	1	1	1.0	100	10	90

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
JAN											
15...	1000	<5.3	22	7.8	9.1	7.2	9.4	.13	2.5	<3.6	15
MAR											
26...	1030	8.8	110	6.8	39	7.0	40	.23	2.5	6.0	75

06630330 NORTH DITCH NEAR COYOTE SPRINGS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM
JAN										
15...	1000	.0	.57	614	.94	--	--	--	--	--
FEB										
26...	1650	.0	12	--	--	44	63	83	95	99
MAR										
26...	1030	2.5	.30	812	.66	--	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
JAN										
15...	--	8	14	39	57	66	73	86	98	100
FEB										
26...	100	--	--	--	--	--	--	--	--	--
MAR										
26...	--	6	11	48	78	90	96	99	100	--

06632400 ROCK CREEK ABOVE KING CANYON CANAL, NEAR ARLINGTON, WY

LOCATION.--Lat 41°35'07", long 106°13'20", in SE¼SW¼ sec.25, T.19 N., R.79 W., Carbon County, Hydrologic Unit 10180004, on left bank 200 ft (61 m) upstream from point of diversion to King Canyon Canal, 0.4 mi (0.6 km) downstream from Overland Creek, 1.0 mi (1.6 km) southwest of Arlington, and 6.9 mi (11.1 km) southwest of McFadden.

DRAINAGE AREA.--62.9 mi² (162.9 km²).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,790 ft (2,374 m), from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. Minor regulation by Sand Lake, capacity, 1,100 acre-ft (1.36 hm³) on Deep Creek, 12 mi (19 km) upstream. No diversion above station.

AVERAGE DISCHARGE.--26 years (water years 1955-80) 82.4 ft³/s (2.334 m³/s), 59,700 acre-ft/yr (73.6 hm³/yr), includes records for station 06632500 Rock Creek at Arlington for water years 1955-65, adjusted for diversions by King Canyon Canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,590 ft³/s (73.3 m³/s) June 19, 1971, gage height, 5.83 ft (1.777 m); minimum daily, 5.5 ft³/s (0.16 m³/s) Dec. 21, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (19.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 3	1930	899	25.5	3.80	1.158
June 6	1930	*1,510	42.8	4.67	1.423

Minimum daily discharge, 11 ft³/s (0.31 m³/s) on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	11	12	12	12	12	12	47	562	238	27	33
2	13	12	12	12	12	12	12	49	518	281	28	32
3	13	12	13	12	12	12	12	52	568	241	26	31
4	13	12	12	12	12	11	12	68	649	185	24	30
5	13	12	12	12	12	11	11	120	734	158	23	30
6	12	12	12	12	12	12	11	190	864	136	21	32
7	12	12	12	12	12	12	11	128	829	124	20	31
8	12	12	12	12	12	12	11	97	728	124	19	35
9	12	12	12	12	12	12	11	82	767	112	21	40
10	12	12	12	12	12	12	11	82	780	101	21	39
11	12	11	11	12	13	12	11	47	920	95	19	38
12	12	11	11	12	13	12	11	32	843	88	18	82
13	12	12	11	12	14	12	12	26	760	86	17	52
14	12	12	12	12	13	12	12	55	673	74	17	38
15	12	12	12	12	13	12	12	57	551	69	21	33
16	12	11	12	12	12	12	13	72	452	61	22	28
17	13	11	12	12	12	12	13	34	458	57	21	25
18	13	12	12	12	12	12	14	53	468	53	18	23
19	13	11	12	12	11	12	16	71	425	55	17	22
20	16	11	12	12	11	12	18	110	415	49	16	24
21	15	11	12	12	11	12	24	198	463	44	16	26
22	14	11	12	12	11	12	29	485	420	42	16	25
23	13	12	12	12	12	12	34	715	410	39	15	23
24	13	14	11	12	11	12	38	774	380	38	16	23
25	14	14	12	12	11	12	35	661	353	40	17	23
26	15	14	12	12	11	12	34	546	348	42	31	22
27	13	13	12	12	12	12	35	524	307	35	23	21
28	12	13	12	12	12	12	37	625	244	31	20	15
29	12	13	11	12	12	12	39	625	215	29	17	13
30	12	12	[illegible]	12	---	12	44	540	229	29	17	12
31	11	---	11	11	---	12	---	562	---	28	33	---
TOTAL	396	360	366	371	347	370	595	7727	16333	2784	637	901
MEAN	12.8	12.0	11.8	12.0	12.0	11.9	19.8	249	544	89.8	20.5	30.0
MAX	16	14	13	12	14	12	44	774	920	281	33	82
MIN	11	11	11	11	11	11	11	26	215	28	15	12
AC-FT	785	714	726	736	688	734	1180	15330	32400	5520	1260	1790

CAL YR 1979 TOTAL 34370 MEAN 94.2 MAX 944 MIN 11 AC-FT 68170
WTR YR 1980 TOTAL 31187 MEAN 85.2 MAX 920 MIN 11 AC-FT 61860

06634600 LITTLE MEDICINE BOW RIVER NEAR MEDICINE BOW, WY

LOCATION.--Lat 41°57'12", long 106°09'38", in NW¼SW¼NE¼ sec.22, T.23 N., R.78 W., Carbon County, Hydrologic Unit 10180005, on right bank 1.6 mi (2.6 km) upstream from State Highway 487, 3.2 mi (5.1 km) downstream from Muddy Creek, and 4.3 mi (6.9 km) northeast of Medicine Bow.

DRAINAGE AREA.--963 mi^2 (2,494 km^2), of which 54 mi^2 (140 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,600 ft (2,012 m), from topographic map.

REMARKS.--Records good except those for periods of no gage-height record, Nov. 13 to Apr. 16, May 14-16, June 16-25, which are poor. Diversions for irrigation of about 5,200 acres (21.0 km^2) above station.

AVERAGE DISCHARGE.--7 years, 60.0 ft^3/s (1.699 m^3/s), 43,470 acre-ft/yr (53.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,500 ft^3/s (269 m^3/s) May 17, 1978, computed from slope-area study, gage height, 14.10 ft (4.298 m) in gage well; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 400 ft^3/s (11.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 19	1800	*935	26.5	5.85	1.783
May 13	0600	524	14.8	4.86	1.481

Minimum daily discharge, 1.1 ft^3/s (0.031 m^3/s) July 24, Aug. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	6.6	2.2	2.4	1.3	3.3	19	357	158	4.7	5.2	3.3
2	5.8	6.8	2.3	2.5	1.4	3.4	19	369	148	5.2	5.0	3.0
3	5.5	7.3	2.3	2.6	1.5	3.5	20	354	143	6.9	5.8	2.8
4	5.5	8.2	2.4	2.8	1.5	3.7	25	354	135	5.8	6.4	2.4
5	5.5	9.4	2.4	2.9	1.6	3.8	30	336	128	5.2	6.9	2.2
6	5.2	11	2.3	3.0	1.6	4.0	36	336	121	4.1	7.5	2.4
7	5.2	13	2.3	3.1	1.5	4.2	41	327	114	3.5	8.0	2.6
8	6.1	14	2.4	3.2	1.5	4.4	44	309	109	3.1	8.6	3.0
9	7.5	14	2.4	3.3	1.4	4.6	47	306	102	3.0	8.6	3.3
10	6.4	13	2.3	3.4	1.5	4.8	53	345	98	2.8	9.1	4.4
11	6.4	12	2.2	3.6	1.6	5.1	63	363	93	2.2	9.6	5.8
12	6.4	11	2.1	3.7	1.6	5.4	82	406	86	2.1	5.8	5.2
13	6.4	12	2.1	3.9	1.7	5.8	110	470	82	1.9	5.0	4.7
14	6.4	12	2.2	4.1	1.8	6.2	150	440	79	1.7	5.0	4.7
15	6.9	13	2.3	4.1	1.9	6.6	215	420	73	1.4	3.1	4.1
16	8.0	13	2.3	4.1	2.0	7.2	300	390	64	1.3	2.6	3.3
17	9.1	13	2.4	4.0	2.1	7.7	392	348	54	1.3	3.5	3.0
18	10	12	2.4	3.9	2.2	8.3	548	306	43	1.6	3.5	2.4
19	11	10	2.5	3.8	2.3	9.2	748	273	34	1.6	2.8	2.2
20	11	8.5	2.5	3.7	2.3	10	730	264	24	1.6	1.9	2.2
21	9.0	7.0	2.4	3.6	2.4	12	645	249	17	1.4	1.6	2.1
22	9.8	6.0	2.3	3.6	2.4	14	616	241	11	1.7	1.3	2.2
23	10	6.3	2.3	3.6	2.4	16	584	230	7.4	1.3	1.2	2.6
24	11	6.5	2.4	3.7	2.4	17	815	217	6.4	1.1	1.1	2.8
25	11	6.3	2.4	3.6	2.6	18	627	207	6.1	1.7	1.6	3.0
26	11	5.3	2.4	3.3	2.8	18	473	200	5.8	2.2	2.6	3.1
27	11	4.1	2.4	3.0	3.0	19	392	195	5.0	2.6	2.8	3.1
28	11	2.9	2.4	2.4	3.2	19	330	186	4.1	2.8	3.5	3.1
29	9.5	2.0	2.3	1.7	3.4	19	291	179	4.1	3.1	4.1	3.1
30	7.8	2.1	2.3	1.4	---	19	312	173	4.4	3.8	3.8	3.0
31	6.7	---	2.3	1.2	---	19	---	164	---	4.4	3.8	---
TOTAL	248.2	268.3	72.2	99.2	58.9	301.2	8757	9314	1959.3	87.1	141.3	95.1
MEAN	8.01	8.94	2.33	3.20	2.03	9.72	292	300	65.3	2.81	4.56	3.17
MAX	11	14	2.5	4.1	3.4	19	815	470	158	6.9	9.6	5.8
MIN	5.2	2.0	2.1	1.2	1.3	3.3	19	164	4.1	1.1	1.1	2.1
AC-FT	492	532	143	197	117	597	17370	18470	3890	173	280	189

CAL YR 1979 TOTAL 14391.90 MEAN 39.4 MAX 528 MIN .00 AC-FT 28550
WTR YR 1980 TOTAL 21401.80 MEAN 58.5 MAX 815 MIN 1.1 AC-FT 42450

06634600 LITTLE MEDICINE BOW RIVER NEAR MEDICINE BOW, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT 16...	1100	--	8.0	--	--	7.5	350	200
NOV 13...	1100	12	--	--	--	.5	460	260
DEC 18...	1130	2.4	--	--	--	.0	420	220
JAN 14...	1100	4.1	--	--	--	.5	470	290
FEB 25...	1115	2.6	--	--	--	.0	410	210
MAR 24...	1500	17	--	--	--	.5	260	120
APR 21...	1400	--	655	--	--	7.0	120	38
MAY 17...	1310	--	360	--	--	5.0	180	90
JUN 25...	1515	--	6.4	1070	8.4	25.0	390	230
JUL 26...	1220	--	2.2	1310	8.6	26.0	500	360
AUG 16...	1130	--	2.4	1400	8.7	18.0	520	380
SEP 14...	1330	--	4.7	225	8.4	23.0	450	310

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT 16...	100	25	120	2.8	6.3	180	0	150	420
NOV 13...	130	32	120	2.4	5.5	240	0	200	480
DEC 18...	120	31	150	3.2	4.7	250	0	200	520
JAN 14...	120	40	100	2.0	4.4	220	0	180	460
FEB 25...	110	29	110	2.4	11	240	0	200	440
MAR 24...	75	19	72	1.9	18	170	0	140	270
APR 21...	31	8.9	28	1.1	3.5	100	0	82	91
MAY 17...	44	16	33	1.1	3.9	110	0	90	150
JUN 25...	120	22	90	2.0	6.3	200	0	160	390
JUL 26...	130	41	110	2.2	5.4	170	0	140	580
AUG 16...	140	40	140	2.7	3.6	170	0	140	630
SEP 14...	120	35	120	2.5	4.4	170	0	140	550

06634600 LITTLE MEDICINE BOW RIVER NEAR MEDICINE BOW, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 16...	16	.5	11	787	1.07	17.0	.00	.030
NOV 13...	16	.6	14	918	1.25	29.7	.10	.010
DEC 18...	18	.5	14	978	1.33	6.34	.05	.020
JAN 14...	18	.5	13	867	1.18	9.60	.57	.090
FEB 25...	17	.5	13	851	1.16	5.97	.14	.010
MAR 24...	9.0	.5	9.4	554	.75	25.4	.01	.080
APR 21...	2.4	.2	5.7	220	.30	389	.08	1.240
MAY 17...	3.8	.3	13	320	.44	311	.09	.350
JUN 25...	12	.7	15	750	1.02	13.0	.00	.010
JUL 26...	20	.6	13	980	1.33	5.82	.08	.010
AUG 16...	31	.6	12	1080	1.47	7.00	.00	.020
SEP 14...	19	.6	5.8	940	1.28	11.9	.00	.080

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)
OCT 16...	1100	210	210	0	2	1	1	0	0	0	1	0
APR 21...	1400	4400	4400	40	8	7	1	0	--	<1	1	--

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)
OCT 16...	2	0	0	0	0	0	0	220	--	10	2	1
APR 21...	<1	10	10	0	14	12	2	13000	13000	100	15	15

DATE	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)
OCT 16...	1	40	10	30	40	10	30	.0	.0	.0	5	0
APR 21...	0	20	0	20	230	230	4	.1	.0	.1	2	--

06634600 LITTLE MEDICINE BOW RIVER NEAR MEDICINE BOW, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT											
16...	7	4	1	3	2	0	2	.0	10	0	20
APR											
21...	<10	19	16	3	4	3	1	3.0	90	--	<3

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)	GROSS ALPHA, DIS-SOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT											
16...	1100	140	1.6	25	32	25	34	.31	138	95	1.1
JAN											
14...	1100	220	.9	39	18	37	19	.20	189	150	.6
APR											
21...	1400	36	190	7.4	72	7.4	73	.33	22	24	130
JUL											
26...	1220	89	<.4	25	<.4	24	<.4	.48	93	61	<.3

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT												
16...	1100	7.5	--	8.0	51	1.1	--	--	--	--	--	--
NOV												
13...	1100	.5	12	--	82	2.7	--	--	--	--	--	--
DEC												
18...	1130	.0	2.4	--	52	.34	--	--	--	--	--	--
JAN												
14...	1100	.5	4.1	--	55	.61	--	--	--	--	--	--
FEB												
25...	1115	.0	2.6	--	30	.21	--	--	--	--	--	--
MAR												
24...	1500	.5	17	--	15	.68	--	--	--	--	--	--
APR												
21...	1400	7.0	--	655	--	--	44	62	88	96	100	--
MAY												
17...	1310	5.0	--	360	--	--	--	--	--	--	--	15
JUN												
25...	1515	25.0	--	6.4	6	.10	--	--	--	--	--	--
JUL												
26...	1220	26.0	--	2.2	13	.08	--	--	--	--	--	--
AUG												
16...	1130	18.0	--	2.4	9	.06	--	--	--	--	--	--
SEP												
14...	1330	23.0	--	4.7	67	.85	--	--	--	--	--	--

06634990 HANNA DRAW NEAR HANNA, WY

LOCATION.--Lat 42°00'22", long 106°30'30", in SE¼SW¼NE¼ sec.34, T.24 N., R.81 W., Carbon County, Hydrologic Unit 10180004, on left bank 0.2 mi (0.3 km) upstream from mouth and 9.5 mi (15.3 km) north of Hanna.

DRAINAGE AREA.--21.6 mi^2 (55.9 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,440 ft (1,963 m), from topographic map.

REMARKS.--Records poor. Several small detention reservoirs above station.

AVERAGE DISCHARGE.--5 years, 0.61 ft^3/s (0.017 m^3/s), 442 acre-ft/yr (0.545 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 385 ft^3/s (10.9 m^3/s) Aug. 1, 1976, gage height, 4.08 ft (1.244 m); no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 80 ft^3/s (2.27 m^3/s) Mar. 15, gage height, 2.48 ft (0.756 m); no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	5.0	1.6	2.1	.46	.00	.00	.00
2	.00	.00	.00	.00	.00	4.4	2.3	1.9	.40	.00	.00	.00
3	.00	.00	.00	.00	.00	1.7	1.7	1.9	.30	.00	.00	.00
4	.00	.00	.00	.00	.00	3.2	1.7	1.3	.20	.00	.00	.00
5	.00	.00	.00	.00	.00	2.2	9.3	1.3	.17	.00	.00	.00
6	.00	.00	.00	.00	.00	1.4	8.6	1.4	.14	.00	.00	.00
7	.00	.00	.00	.00	.00	1.0	5.2	1.7	.12	.00	.00	.00
8	.00	.00	.00	.00	.00	.61	3.6	1.3	.12	.00	.00	.00
9	.00	.00	.00	.00	.00	.20	2.7	1.9	.14	.00	.00	.00
10	.00	.00	.00	.00	.00	1.7	4.0	2.7	.12	.00	.00	.00
11	.00	.00	.00	.00	.00	7.0	3.3	4.0	.08	.00	.00	.00
12	.00	.00	.00	.02	.00	6.5	2.6	4.6	.03	.00	.00	.00
13	.00	.00	.00	.05	.00	5.5	3.2	4.4	.00	.00	.00	.00
14	.00	.00	.00	.50	.00	14	8.9	3.8	.00	.00	.00	.00
15	.00	.00	.00	.08	.00	38	12	1.5	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	13	9.8	1.1	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	9.5	7.6	1.0	.00	.00	.00	.00
18	.00	.00	.00	.00	.28	9.1	9.5	1.0	.00	.00	.00	.00
19	.00	.00	.00	.00	3.0	11	8.4	.90	.00	.00	.00	.00
20	.00	.00	.00	.00	2.8	9.5	7.6	.81	.00	.00	.00	.00
21	.00	.00	.00	.00	2.4	12	7.3	.81	.00	.00	.00	.00
22	.00	.00	.00	.00	2.0	10	6.2	.65	.00	.00	.00	.00
23	.00	.00	.00	.00	1.2	13	11	.65	.00	.00	.00	.00
24	.00	.00	.00	.00	.75	22	8.4	.65	.00	.00	.00	.00
25	.00	.00	.00	.00	.50	12	4.6	1.0	.00	.00	.00	.00
26	.00	.00	.00	.00	.20	5.0	3.3	.65	.00	.00	.00	.00
27	.00	.00	.00	.00	11	3.8	3.0	.52	.00	.00	.00	.00
28	.00	.00	.00	.00	18	1.7	2.8	.46	.00	.00	.00	.00
29	.00	.00	.00	.00	15	1.9	3.2	.46	.00	.00	.00	.00
30	.00	.00	.00	.00	---	1.6	2.2	.46	.00	.00	.00	.00
31	.00	---	.00	.00	---	1.3	---	.46	---	.00	.00	---
TOTAL	.00	.00	.00	.65	57.13	228.81	165.6	47.38	2.28	.00	.00	.00
MEAN	.000	.000	.000	.021	1.97	7.38	5.52	1.53	.076	.000	.000	.000
MAX	.00	.00	.00	.50	18	38	12	4.6	.46	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.20	1.6	.46	.00	.00	.00	.00
AC-FT	.00	.00	.00	1.3	113	454	328	94	4.5	.00	.00	.00

CAL YR 1979 TOTAL 272.69 MEAN .75 MAX 34 MIN .00 AC-FT 541
WTR YR 1980 TOTAL 501.85 MEAN 1.37 MAX 38 MIN .00 AC-FT 995

06634990 HANNA DRAW NEAR HANNA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
FEB										
25...	1600	.07	1980	7.0	.0	12.0	1200	880	220	150
MAR										
25...	1300	10	790	8.5	2.5	--	330	210	60	44
APR										
22...	0900	5.4	1050	8.4	10.0	8.9	490	320	99	60
30...	1000	2.6	1780	8.7	8.5	9.4	880	600	170	110
MAY										
15...	0930	1.6	1960	8.6	7.5	9.7	1000	710	190	130

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
FEB										
25...	170	2.2	8.1	290	1100	13	.3	7.5	1840	2.50
MAR										
25...	43	1.0	5.9	120	280	4.0	.2	4.6	515	.70
APR										
22...	58	1.1	5.5	170	420	6.3	.3	6.8	758	1.03
30...	120	1.8	7.1	280	800	12	.4	6.1	1390	1.89
MAY										
15...	160	2.2	7.4	300	960	14	.4	5.1	1650	2.24

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
FEB										
25...	.35	.46	.310	.38	.79	1.1	1.6	6.9	.070	.21
MAR										
25...	13.9	.28	.350	.42	2.3	2.6	2.9	13	.710	2.2
APR										
22...	11.1	.12	.010	.01	1.1	1.1	1.2	5.4	.110	.34
30...	9.76	.34	.000	.00	.79	.79	1.1	5.0	.040	.12
MAY										
15...	7.13	.17	.060	.07	.82	.88	1.1	4.6	.040	.12

06634990 HANNA DRAW NEAR HANNA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
FEB 25...	1600	1500	1500	20	1	1	0	0	0	0	90	2
MAR 25...	1300	9500	9500	30	3	2	1	0	0	0	80	0
APR 22...	0900	1000	960	40	1	1	0	0	--	<1	70	1
30...	1000	--	--	--	--	--	--	--	--	--	80	--
MAY 15...	0930	560	--	--	1	--	--	0	--	--	100	0

DATE	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
FEB 25...	2	0	10	0	10	13	13	0	4300	4300	10	15
MAR 25...	0	0	30	30	0	26	18	8	26000	26000	150	19
APR 22...	--	<1	0	0	0	3	0	3	5200	5200	30	8
30...	--	--	--	--	--	--	--	--	--	--	30	--
MAY 15...	--	--	0	--	--	5	--	--	900	870	30	2

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)
FEB 25...	6	9	50	20	30	630	270	360	.1	.1	.0	0
MAR 25...	15	4	20	10	10	700	220	480	.1	.0	.1	3
APR 22...	8	0	20	0	20	140	120	20	.1	.0	.2	2
30...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 15...	--	--	40	--	--	160	--	--	.1	--	--	1

DATE	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
FEB 25...	0	1	8	7	1	1	0	1	.0	110	100	10
MAR 25...	3	0	22	18	4	2	1	1	.0	100	60	40
APR 22...	--	<10	7	1	6	1	0	1	.0	50	40	10
30...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 15...	--	--	8	--	--	1	--	--	--	130	--	--

06634990 HANNA DRAW NEAR HANNA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM
MAR										
25...	1300	2.5	10	--	--	38	56	80	92	100
APR										
22...	0900	10.0	5.4	263	3.8	--	--	--	--	--
30...	1000	8.5	2.6	108	.76	--	--	--	--	--
MAY										
15...	0930	7.5	1.6	94	.41	--	--	--	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
MAR										
25...	6	8	16	30	36	48	68	89	98	100
APR										
22...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
MAY										
15...	--	--	--	--	--	--	--	--	--	--

06635000 MEDICINE BOW RIVER ABOVE SEMINOE RESERVOIR, NEAR HANNA, WY

LOCATION.--Lat 42°00'35", long 106°30'45", in SE¼NW¼ sec.34, T.24 N., R.81 W., Carbon County, Hydrologic Unit 10180004, on left bank 15 ft (5 m) downstream from county highway bridge, 2.0 mi (3.2 km) upstream from Troublesome Creek, 9.0 mi (14.5 km) upstream from high-water line of Seminoe Reservoir at elevation 6,357 ft (1,938 m), and 10 mi (16 km) north of Hanna.

DRAINAGE AREA.--2,338 mi^2 (6,055 km^2), of which 396 mi^2 (1,026 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1939 to current year.

REVISED RECORDS.--WSP 956: 1941(M). WSP 1440: 1940(M), 1941. WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,415.40 ft (1,955.414 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Many small reservoirs above station, total capacity, about 6,000 acre-ft (7.40 hm^3), for irrigation. Diversions for irrigation of about 43,000 acres (174 km^2) above station.

COOPERATION.--Six discharge measurements furnished by Water and Power Resources Service.

AVERAGE DISCHARGE.--41 years, 179 ft^3/s (5.069 m^3/s), 129,700 acre-ft/yr (160 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,590 ft^3/s (187 m^3/s) Mar. 29, 1943, gage height, 5.23 ft (1.594 m), from rating curve extended above 2,500 ft^3/s (70.8 m^3/s); maximum gage height, 6.74 ft (2.054 m) May 12, 1973; minimum daily discharge, 1.1 ft^3/s (0.031 m^3/s) Sept. 7-14, 1959, Aug. 7, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,120 ft^3/s (60.0 m^3/s) Apr. 25, gage height, 3.86 ft (1.177 m); minimum daily, 5.5 ft^3/s (0.16 m^3/s) Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	32	42	48	41	72	122	934	958	186	40	9.5
2	21	33	43	48	43	72	115	998	910	174	35	12
3	21	35	44	49	44	74	115	974	886	143	30	10
4	21	37	45	49	45	75	122	958	821	138	26	7.8
5	21	40	46	50	46	77	146	950	814	136	25	8.6
6	21	44	47	50	47	78	190	966	842	134	25	9.5
7	20	48	48	51	46	79	186	1070	870	134	22	7.0
8	20	52	49	52	44	80	190	998	886	132	21	7.8
9	22	52	50	52	42	80	182	942	870	122	21	8.6
10	23	50	50	53	43	80	194	958	878	103	20	10
11	23	52	45	54	44	83	217	1100	910	88	14	12
12	22	62	46	54	45	86	221	1250	950	83	12	18
13	22	74	46	55	47	89	208	1500	950	75	12	20
14	22	86	47	55	48	94	235	1600	950	75	12	18
15	22	92	48	55	49	100	358	1400	910	73	12	17
16	25	86	49	55	51	108	520	1210	835	65	10	15
17	26	74	50	55	52	116	814	1030	800	63	10	26
18	28	65	51	55	54	122	950	974	716	60	11	25
19	28	56	51	54	55	126	1260	934	590	56	7.8	23
20	38	50	51	54	56	130	1580	828	541	56	7.0	22
21	40	46	50	54	58	134	1640	856	520	54	6.2	22
22	38	45	49	53	60	138	1640	894	484	54	5.5	20
23	38	48	48	53	61	142	1630	942	484	54	8.6	19
24	35	50	47	53	62	144	1660	1030	448	52	10	19
25	37	50	48	53	64	146	1990	1140	400	52	11	22
26	38	49	49	51	66	143	1710	1310	370	51	20	25
27	37	47	50	49	68	143	1320	1410	329	51	15	25
28	37	44	50	46	70	150	1090	1240	270	51	12	24
29	40	39	49	44	72	146	966	1130	240	51	12	23
30	36	40	47	42	---	136	910	1090	203	49	9.5	22
31	32	---	47	40	---	129	---	1050	---	45	9.5	---
TOTAL	874	1578	1482	1586	1523	3372	22481	33666	20635	2660	492.1	507.8
MEAN	28.2	52.6	47.8	51.2	52.5	109	749	1086	688	85.8	15.9	16.9
MAX	40	92	51	55	72	150	1990	1600	958	186	40	26
MIN	20	32	42	40	41	72	115	828	203	45	5.5	7.0
AC-FT	1730	3130	2940	3150	3020	6690	44590	66780	40930	5280	976	1010

CAL YR 1979 TOTAL 66654.2 MEAN 183 MAX 1040 MIN 6.0 AC-FT 132200
WTR YR 1980 TOTAL 90856.9 MEAN 248 MAX 1990 MIN 5.5 AC-FT 180200

06635000 MEDICINE BOW RIVER ABOVE SEMINOE RESERVOIR, NEAR HANNA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT								
11...	1100	--	24	--	--	9.5	680	530
NOV								
13...	1430	74	--	--	--	.5	680	480
DEC								
18...	1330	51	--	--	--	.0	570	380
JAN								
14...	1600	55	--	--	--	.5	550	380
FEB								
25...	1630	64	--	--	--	.0	490	330
MAR								
25...	1045	146	--	--	--	1.0	400	280
APR								
22...	1345	--	1670	--	--	10.0	240	130
30...	1100	--	918	--	--	11.0	240	130
MAY								
31...	1400	--	1050	--	--	9.0	160	70
JUN								
25...	1130	--	400	700	8.2	18.0	260	130
JUL								
22...	1515	--	54	1320	8.2	27.0	590	440
AUG								
21...	1130	--	7.0	1950	8.5	17.0	840	710
SEP								
22...	1245	--	20	1535	8.5	12.0	750	600

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT									
11...	180	56	130	2.2	4.3	180	0	150	700
NOV									
13...	150	73	160	2.7	4.3	240	0	200	760
DEC									
18...	140	55	140	2.5	3.4	230	0	190	630
JAN									
14...	130	54	79	1.5	2.8	210	0	170	490
FEB									
25...	120	46	85	1.7	14	200	0	160	480
MAR									
25...	96	38	72	1.6	4.6	150	0	120	400
APR									
22...	60	23	67	1.9	4.2	140	0	120	270
30...	56	25	48	1.3	6.4	130	0	110	230
MAY									
31...	35	18	26	.9	2.8	110	0	90	130
JUN									
25...	66	23	47	1.3	3.1	160	0	130	220
JUL									
22...	130	64	110	2.0	4.1	180	0	150	590
AUG									
21...	180	93	180	2.7	4.3	160	[illegible]	130	940
SEP									
22...	170	77	120	1.9	3.0	180	3	150	780

06635000 MEDICINE BOW RIVER ABOVE SEMINOE RESERVOIR, NEAR HANNA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT								
11...	59	.6	4.9	1220	1.66	79.1	.00	.020
NOV								
13...	40	.5	4.7	1320	1.80	264	2.4	.060
DEC								
18...	31	.6	7.4	1120	1.52	154	2.2	.070
JAN								
14...	29	.5	7.8	900	1.22	134	1.4	.070
FEB								
25...	31	.5	7.4	884	1.20	153	.92	.020
MAR								
25...	19	.5	5.3	712	.97	281	.39	.170
APR								
22...	9.1	.3	5.1	511	.70	2300	.66	.640
30...	9.7	.3	7.9	449	.61	1110	.34	.280
MAY								
31...	4.1	.4	8.3	280	.38	794	.05	.110
JUN								
25...	9.0	.6	8.6	460	.63	497	.04	.040
JUL								
22...	31	.6	4.2	1020	1.39	149	.00	.000
AUG								
21...	48	.6	1.5	1530	2.08	28.9	.00	.050
SEP								
22...	48	.7	4.4	1300	1.77	70.2	.04	.010

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, SUSPENDED RECOV. (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)
OCT												
11...	1100	250	230	20	1	0	1	0	0	0	0	0
APR												
22...	1345	8400	8300	60	4	3	1	0	0	0	1	1

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)
OCT												
11...	1	10	0	10	0	0	2	300	--	10	3	0
APR												
22...	0	20	20	0	14	13	1	18000	18000	110	24	24

DATE	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, SUSPENDED RECOV. (UG/L AS MO)
OCT												
11...	4	50	0	50	40	10	30	.3	.1	.2	10	0
APR												
22...	0	50	20	30	350	340	10	.1	.0	.1	3	1

06635000 MEDICINE BOW RIVER ABOVE SEMINOE RESERVOIR, NEAR HANNA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 11...	10	0	0	0	4	0	4	1.0	10	0	20
APR 22...	2	26	20	6	6	2	4	1.0	170	140	30

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT 11...	1100	36	.8	11	3.6	11	3.7	.38	50	24	.5
JAN 14...	1600	24	3.3	9.6	5.7	9.0	5.5	.23	25	16	2.2
APR 22...	1345	19	110	6.5	71	6.5	71	.19	12	13	75
JUL 22...	1515	22	.5	8.5	1.8	8.0	1.7	.31	20	15	.3

DATE	TIME	TEMPERATURE, WATER (DEG C)	STREAMFLOW (CFS)	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
OCT 11...	1100	9.5	--	24	63	4.1	--
NOV 13...	1430	.5	74	--	224	45	--
DEC 18...	1330	.0	51	--	124	17	--
JAN 14...	1600	.5	55	--	159	24	--
FEB 25...	1630	.0	64	--	95	16	--
MAR 25...	1045	1.0	146	--	541	213	--
APR 30...	1100	11.0	--	918	--	--	42
MAY 31...	1400	9.0	--	1050	469	1330	--
JUN 05...	1000	13.0	--	793	498	1070	--
25...	1130	18.0	--	400	170	184	--
JUL 22...	1515	27.0	--	54	46	6.7	--
AUG 21...	1130	17.0	--	7.0	13	.25	--
SEP 22...	1245	12.0	--	20	52	2.8	--

06635000 MEDICINE BOW RIVER ABOVE SEMINOE RESERVOIR, NEAR HANNA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
11...	--	--	--	--	--	--
NOV						
13...	--	--	--	--	--	95
DEC						
18...	--	--	--	--	--	87
JAN						
14...	--	--	--	--	--	99
FEB						
25...	--	--	--	--	--	98
MAR						
25...	--	--	--	--	--	87
APR						
30...	62	87	95	99	100	--
MAY						
31...	--	--	--	--	--	73
JUN						
05...	--	--	--	--	--	73
25...	--	--	--	--	--	86
JUL						
22...	--	--	--	--	--	--
AUG						
21...	--	--	--	--	--	--
SEP						
22...	--	--	--	--	--	--

06635500 SEMINOE RESERVOIR NEAR LEO, WY

LOCATION.--Lat 42°09'21", long 106°54'29", in NW¼NE¼ sec.8, T.25 N., R.84 W., Carbon County, Hydrologic Unit 10180003, on upstream side near center of dam on North Platte River, 6.0 mi (9.7 km) upstream from high-water line of Pathfinder Reservoir at elevation 5,850.1 ft (1,783.11 m), and 9.0 mi (14.5 km) southwest of Leo.

DRAINAGE AREA.--7,230 mi² (18,726 km²), of which 589 mi² (1,526 km²) is probably noncontributing.

PERIOD OF RECORD.--February 1939 to current year. Monthend figures only for February, March 1939, October 1940 to September 1950, published in WSP 1310

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,190.00 ft (1,886.712 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service). Prior to Apr. 20, 1939, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete-arch dam. Storage began Apr. 1, 1939, but some regulation for power development during period Jan. 1 to Mar. 31, 1939. Capacity, 1,017,000 acre-ft (1,254 hm³) below elevation 6,357 ft (1,937.6 m), top of spillway gates. Figures given herein represent total contents, of which 31,700 acre-ft (39.1 hm³), capacity below elevation 6,239 ft (1,901.6 m), minimum operating level for power development, are not available for power development and 533 acre-ft (0.657 hm³), below elevation 6,185.09 ft (1,885.215 m), penstock invert, is dead storage. Water is used for irrigation and power development.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,073,000 acre-ft (1,320 hm³) June 20, 1949, elevation 6,359.29 ft (1,938.312 m); minimum daily (since appreciable storage was attained), 19,040 acre-ft (23.5 hm³) Sept. 1, 1939, elevation, 6,228.00 ft (1,898.294 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 977,000 acre-ft (1,200 hm³) July 13, 15, 16, 18, elevation, 6,354.97 ft (1,936.995 m); minimum daily contents, 317,000 acre-ft (391 hm³) Apr. 16, 17, minimum elevation, 6,305.02 ft (1,921.770 m)Apr. 16.

Capacity table (elevation, in feet,
and contents, in acre-feet)

6,305	316,000	6,325	514,000	6,345	796,000
6,310	359,000	6,330	575,000	6,350	883,000
6,315	406,000	6,335	642,000	6,355	977,000
6,320	458,000	6,340	716,000		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	837000	776000	706000	635000	560000	467000	358000	417000	742000	954000	962000	904000
2	834000	774000	703000	633000	558000	463000	354000	426000	749000	957000	960000	902000
3	831000	772000	701000	630000	555000	460000	351000	433000	757000	962000	958000	900000
4	829000	769000	699000	628000	551000	456000	347000	440000	763000	967000	955000	898000
5	826000	768000	696000	625000	550000	452000	344000	448000	770000	969000	953000	896000
6	824000	768000	694000	622000	547000	448000	342000	456000	780000	971000	952000	895000
7	822000	766000	692000	620000	544000	445000	340000	464000	788000	973000	951000	893000
8	820000	764000	689000	616000	542000	441000	337000	473000	796000	974000	949000	890000
9	818000	762000	687000	614000	540000	437000	334000	485000	806000	974000	948000	889000
10	816000	759000	685000	611000	537000	433000	331000	496000	814000	975000	946000	887000
11	813000	757000	683000	609000	534000	429000	328000	511000	825000	976000	944000	888000
12	812000	754000	680000	607000	532000	426000	325000	526000	836000	976000	942000	887000
13	810000	752000	678000	604000	529000	421000	322000	541000	846000	977000	940000	886000
14	808000	750000	675000	602000	527000	417000	319000	554000	857000	976000	939000	886000
15	805000	747000	672000	600000	524000	415000	318000	566000	867000	977000	937000	885000
16	804000	745000	670000	598000	521000	412000	317000	575000	876000	977000	935000	885000
17	803000	742000	667000	596000	516000	409000	317000	584000	884000	976000	933000	884000
18	801000	740000	665000	593000	513000	405000	319000	593000	891000	977000	931000	883000
19	799000	738000	662000	591000	508000	402000	322000	602000	899000	975000	929000	882000
20	798000	735000	660000	589000	504000	399000	327000	611000	906000	975000	927000	882000
21	796000	731000	658000	587000	500000	394000	332000	620000	912000	975000	925000	881000
22	794000	733000	655000	585000	496000	391000	337000	628000	919000	974000	924000	880000
23	792000	728000	654000	582000	492000	389000	344000	640000	923000	973000	922000	879000
24	790000	725000	652000	579000	489000	386000	353000	653000	929000	972000	919000	878000
25	788000	722000	651000	577000	485000	383000	363000	667000	934000	972000	917000	877000
26	785000	719000	650000	575000	481000	380000	374000	681000	938000	971000	916000	876000
27	783000	716000	648000	573000	476000	376000	385000	693000	941000	969000	914000	876000
28	781000	714000	646000	570000	473000	372000	394000	704000	945000	968000	913000	875000
29	781000	712000	643000	568000	470000	369000	401000	714000	948000	967000	911000	874000
30	779000	710000	641000	565000	---	365000	409000	725000	949000	965000	909000	873000
31	778000	---	638000	563000	---	362000	---	734000	---	963000	907000	---
MAX	837000	776000	706000	635000	560000	467000	409000	734000	949000	977000	962000	904000
MIN	778000	710000	638000	563000	470000	362000	317000	417000	742000	954000	907000	873000
(†)	6,343.92	6,339.60	6,334.72	6.329.00	6,321.12	6,310.32	6,315.25	6,341.20	6,353.55	6,354.27	6,351.30	6,349.47
(‡)	-61,000	-68,000	-72,000	-75,000	-93,000	-108,000	+47,000	+325,000	+215,000	+14,000	-56,000	-34,000

CAL YR 1979 MAX 911000 MIN 330000 ‡+35,000
WTR YR 1980 MAX 977000 MIN 317000 ‡+34,000
(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

06636000 NORTH PLATTE RIVER ABOVE PATHFINDER RESERVOIR, WY

LOCATION.--Lat 42°10'42", long 106°52'33", in NW¼NE¼SW¼ sec.34, T.26 N., R.84 W., Carbon County, Hydrologic Unit 10180003, at Bureau of Reclamation gaging station, 1,800 ft (549 m) downstream from Kortes Dam, 1.2 mi (1.9 km) upstream from Lost Creek, 5.0 mi (8.0 km) upstream from high-water line of Pathfinder Reservoir at elevation 5,850 ft (1,783 m), and 6.0 mi (9.6 km) southwest of Leo.

DRAINAGE AREA.--7,241 mi^2 (18,754 km^2), of which 589 mi^2 (1,526 km^2) is probably noncontributing.

PERIOD OF RECORD.--Water years 1969 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

REMARKS.--Discharge records furnished by Water and Power Resources Service.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)
OCT							
16...	1400	--	370	7.9	13.0	15	6.0
NOV							
13...	1615	--	370	7.9	8.0	10	8.8
DEC							
27...	1050	1200	475	8.1	3.0	6	10.5
FEB							
06...	0900	1750	475	8.1	3.0	2	10.5
APR							
11...	1050	2510	510	--	3.0	4	10.2
MAY							
13...	1040	1350	585	--	4.0	4	9.6
JUN							
09...	1020	1810	502	--	10.0	3	8.6
JUL							
10...	1100	970	520	--	15.0	4	12.0
AUG							
07...	1035	830	509	8.7	15.0	4	11.2
SEP							
04...	1055	1020	496	--	15.5	15	11.5

06637750 ROCK CREEK ABOVE ROCK CREEK RESERVOIR, WY

LOCATION.--Lat 42°32'59", long 108°46'26", in NW¼NW¼ sec.27, T.30 N., R.100 W., Fremont County, Hydrologic Unit 10180006, Shoshone National Forest, on left bank 200 ft (61 m) upstream from high-water line of Rock Creek Reservoir, 2.7 mi (4.3 km) downstream from Little Rock Creek, and 4.3 mi (6.9 km) northwest of Atlantic City.

DRAINAGE AREA.--9.2 mi^2 (23.8 km^2), approximately.

PERIOD OF RECORD.--May 1962 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,330 ft (2,539 m), from topographic map.

REMARKS.--Records good except for periods of ice effect, which are fair. No diversions above station.

AVERAGE DISCHARGE.--18 years, 8.73 ft^3/s (0.247 m^3/s), 6,320 acre-ft/yr (7.79 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 214 ft^3/s (6.06 m^3/s) June 9, 1965, gage height, 7.26 ft (2.213 m); maximum gage height, 8.54 ft (2.603 m) Apr. 22, 1965 (backwater from ice); minimum daily discharge, 0.5 ft^3/s (0.014 m^3/s) Jan. 12-14, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 70 ft^3/s (1.98 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 9	1830	92	2.61	6.54	1.993
May 23	1900	*132	3.74	6.79	2.070
June 5	0030	100	2.83	6.60	2.012

Minimum daily discharge, 1.4 ft^3/s (0.040 m^3/s) Mar. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.7	2.0	1.8	1.8	1.7	1.6	38	73	17	3.7	2.3
2	2.0	2.7	2.0	1.8	1.8	1.7	1.6	39	76	16	3.5	2.1
3	1.9	2.4	2.0	1.9	1.8	1.7	1.6	40	81	16	3.3	2.0
4	2.0	2.4	2.0	1.9	1.8	1.7	1.6	43	90	15	3.3	2.0
5	2.0	2.4	2.0	1.9	1.8	1.7	1.6	50	91	13	3.2	2.0
6	2.0	2.2	2.0	1.9	1.8	1.7	1.6	63	85	11	3.0	2.0
7	2.0	2.2	2.0	1.9	1.7	1.7	1.6	64	79	11	2.9	2.0
8	2.0	2.3	2.0	1.9	1.7	1.6	1.5	72	78	11	2.9	2.0
9	2.2	1.8	2.0	1.9	1.8	1.6	1.5	81	79	10	2.9	2.1
10	2.1	2.1	2.0	1.6	1.8	1.6	1.5	73	82	9.2	2.8	2.2
11	2.1	2.2	2.0	1.8	1.8	1.6	1.5	60	84	8.6	2.7	2.7
12	2.0	2.2	1.9	1.8	1.8	1.6	1.5	51	81	8.2	2.6	3.5
13	2.0	2.2	1.8	1.8	1.8	1.6	1.6	45	74	7.9	2.7	4.1
14	2.0	2.2	1.8	1.6	1.8	1.6	1.8	43	66	7.5	2.7	2.5
15	2.0	2.2	1.8	1.8	1.8	1.6	2.2	40	57	7.3	3.2	2.2
16	2.3	2.2	1.8	1.8	1.8	1.6	2.3	38	50	6.9	4.0	2.1
17	2.2	2.2	1.8	1.8	1.7	1.6	2.3	39	48	6.6	4.7	2.0
18	2.3	2.2	1.8	1.8	1.7	1.6	2.9	39	45	6.5	3.0	2.0
19	3.2	2.1	1.8	1.8	1.7	1.6	3.8	42	44	6.2	2.8	2.0
20	4.4	2.1	1.8	1.8	1.7	1.6	5.4	51	41	5.8	2.8	2.0
21	4.3	2.2	1.8	1.8	1.7	1.6	7.0	71	38	5.5	2.7	2.0
22	3.9	2.2	1.8	1.8	1.7	1.6	10	97	36	5.2	2.5	2.0
23	3.6	2.2	1.8	1.8	1.7	1.6	15	114	32	5.1	2.7	2.0
24	3.6	2.2	1.8	1.8	1.6	1.6	15	106	29	5.1	2.5	2.1
25	3.4	2.2	1.8	1.8	1.6	1.6	16	87	26	5.0	2.6	2.0
26	3.2	2.2	1.8	1.8	1.7	1.6	18	76	24	4.5	3.1	2.0
27	2.9	2.1	1.8	1.9	1.7	1.6	18	70	21	4.3	2.5	2.0
28	2.7	2.0	1.8	1.9	1.7	1.6	20	69	19	4.1	2.4	1.9
29	2.6	2.0	1.8	1.9	1.7	1.5	24	69	18	3.9	2.2	1.9
30	2.8	2.0	1.8	1.8	---	1.6	30	71	18	3.9	2.3	1.9
31	2.8	---	1.8	1.8	---	1.4	---	72	---	3.7	2.3	---
TOTAL	80.5	66.3	58.1	56.4	50.5	50.0	214.0	1913	1665	251.0	90.5	65.6
MEAN	2.60	2.21	1.87	1.82	1.74	1.61	7.13	61.7	55.5	8.10	2.92	2.19
MAX	4.4	2.7	2.0	1.9	1.8	1.7	30	114	91	17	4.7	4.1
MIN	1.9	1.8	1.8	1.6	1.6	1.4	1.5	38	18	3.7	2.2	1.9
AC-FT	160	132	115	112	100	99	424	3790	3300	498	180	130

CAL YR 1979 TOTAL 2865.4 MEAN 7.85 MAX 93 MIN 1.1 AC-FT 5680
WTR YR 1980 TOTAL 4560.9 MEAN 12.5 MAX 114 MIN 1.4 AC-FT 9050

06638090 SWEETWATER RIVER NEAR SWEETWATER STATION, WY

LOCATION.--Lat 42°30'17", long 108°14'59", in SW¼SE¼NE¼ sec.12, T.29 N., R.96 W., Fremont County, Hydrologic Unit 10180006, on left bank 1.4 mi (2.3 km) downstream from Alkali Creek and 4.4 mi (7.1 km) southwest of Sweetwater Station.

DRAINAGE AREA.--849 mi² (2,199 km²).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,590 ft (2,009 m), from topographic map.

REMARKS.--Records good except those for winter period and periods of no gage-height record, Nov. 29 to Dec. 4, Dec. 28 to Feb. 15, Mar. 23, June 9-18, which are poor. Transbasin diversion by Continental Divide ditch diverts water from Little Sandy Creek to land along Lander Creek (tributary to Sweetwater River). A transbasin diversion diverts water from Sweetwater River into Pacific Creek (tributary to Big Sandy River in Green River basin).

AVERAGE DISCHARGE.--7 years, 144 ft³/s (4.078 m³/s), 104,300 acre-ft/yr (129 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,750 ft³/s (163 m³/s) Apr. 24, 1980, gage height, 12.40 ft (3.780 m), from floodmark; minimum daily, 5.6 ft³/s (0.16 m³/s) Jan. 9, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 900 ft³/s (25.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 24	1800	*5,750	163	12.40	3.780
May 18	0200	1,390	39.4	6.92	2.109

Minimum daily discharge, 21 ft³/s (0.60 m³/s) Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	60	29	30	24	32	37	1570	770	376	54	29
2	24	58	28	30	25	32	41	1730	745	414	51	29
3	25	56	28	30	25	31	45	1520	745	390	48	27
4	26	56	29	30	27	31	51	1330	752	376	45	26
5	26	54	31	30	30	31	52	1240	727	380	41	25
6	24	52	32	29	30	31	52	1280	745	308	38	21
7	24	50	31	29	29	32	48	1290	750	269	37	23
8	24	48	30	29	28	32	58	1230	713	246	37	27
9	24	47	30	30	29	32	62	1240	700	236	37	25
10	25	45	30	30	30	33	64	1260	680	220	35	24
11	26	45	30	30	31	37	62	1250	700	200	34	29
12	27	44	30	31	31	41	61	1160	720	181	34	35
13	30	44	30	33	31	42	61	1030	730	170	32	39
14	31	44	30	33	31	42	74	987	720	157	32	59
15	30	43	30	30	32	42	82	1060	680	152	32	66
16	33	42	31	29	32	42	89	980	660	143	39	50
17	38	41	31	28	31	42	89	1140	640	134	43	43
18	44	41	31	28	31	42	103	1270	610	126	47	35
19	46	41	31	27	31	41	114	1170	612	120	51	34
20	69	41	31	27	32	39	123	1050	634	114	44	42
21	126	41	30	27	32	39	141	992	604	106	39	36
22	104	41	30	28	32	39	356	1000	628	104	36	38
23	79	40	30	27	32	38	1130	1070	608	96	30	33
24	73	40	29	26	33	38	2780	1160	563	91	32	38
25	71	40	28	25	33	38	2730	1210	534	89	31	41
26	71	39	28	24	34	37	2880	1130	493	87	31	36
27	71	37	28	24	34	38	2020	1020	461	75	31	39
28	71	35	28	23	34	38	1540	937	436	68	29	36
29	66	33	28	24	34	37	1330	897	336	60	27	39
30	63	30	29	24	---	37	1430	927	231	58	26	39
31	62	---	30	24	---	36	---	822	---	55	29	---
TOTAL	1478	1328	921	869	888	1142	17705	35952	18927	5601	1152	1063
MEAN	47.7	44.3	29.7	28.0	30.6	36.8	590	1160	631	181	37.2	35.4
MAX	126	60	32	33	34	42	2880	1730	770	414	54	66
MIN	24	30	28	23	24	31	37	822	231	55	26	21
AC-FT	2930	2630	1830	1720	1760	2270	35120	71310	37540	11110	2280	2110

CAL YR 1979 TOTAL 46219 MEAN 127 MAX 878 MIN 16 AC-FT 91680
WTR YR 1980 TOTAL 87026 MEAN 238 MAX 2880 MIN 21 AC-FT 172600

06639000 SWEETWATER RIVER NEAR ALCOVA, WY

LOCATION.--Lat 42°27'28", long 107°11'45", in SW¼NE¼ sec.25, T.29 N., R.87 W., Natrona County, Hydrologic Unit 10180006, on left bank at Dumbell Ranch, 1.0 mi (1.6 km) downstream from Schounmaker ditch diversion dam, 13 mi (21 km) upstream from high-water line of Pathfinder Reservoir at elevation 5,850 ft (1,783 m), and 25 mi (40 km) southwest of Alcova.

DRAINAGE AREA.--2,327 mi^2 (6,027 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1913 to September 1924, October 1938 to current year (no winter records during 1974, 1975, and since 1976). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1921, 1923-24. WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,920 ft (1,804 m), from topographic map. Aug. 28, 1913, to Sept. 30, 1924, nonrecording gages at site 0.4 mi (0.6 km) upstream at different datums.

REMARKS.--Records good. Several small reservoirs above station, combined capacity, about 5,000 acre-ft (6.16 hm^3), for irrigation. Diversions for irrigation of about 24,000 acres (97.1 km^2) above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey. Six discharge measurements were made by Water and Power Resources Service.

AVERAGE DISCHARGE.--47 years (water years 1914-24, 1939-73, 1976), 126 ft^3/s (3.568 m^3/s), 91,290 acre-ft/yr (113 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 4,290 ft^3/s (121 m^3/s) Apr. 13, 1924, gage height, 8.36 ft (2.548 m), site and datum then in use; minimum daily, 0.5 ft^3/s (0.014 m^3/s) July 30 to Aug. 12, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,410 ft^3/s (68.3 m^3/s) Apr. 28, gage height, 8.84 ft (2.694 m); minimum daily during period of operation, 18 ft^3/s (0.51 m^3/s) Sept. 5-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							89	1550	1060	343	81	25
2							89	1360	1020	312	80	24
3							88	1280	970	285	77	21
4							88	1370	886	287	75	19
5							85	1560	798	291	72	18
6							83	1610	740	273	72	18
7							83	1460	706	271	69	18
8							85	1330	679	263	69	18
9							81	1260	656	241	70	18
10							81	1310	662	217	64	18
11							86	1410	640	201	61	21
12							86	1470	609	193	57	29
13							88	1550	603	193	56	29
14							86	1560	612	184	53	29
15							85	1470	625	168	53	27
16							85	1310	656	156	53	28
17							89	1260	706	148	53	31
18							98	1250	740	143	51	34
19							110	1170	706	139	51	37
20							118	1130	631	134	49	37
21							130	1220	549	120	49	38
22							138	1290	534	113	53	42
23							165	1260	525	103	56	41
24							213	1160	501	100	57	42
25							306	1080	501	96	56	42
26							447	1040	475	98	59	49
27							570	1040	441	96	57	59
28							1390	1080	402	91	45	57
29							2160	1090	376	88	28	57
30							1900	1130	357	83	28	57
31							---	1110	---	83	26	---
TOTAL							9202	40170	19366	5513	1780	983
MEAN							307	1296	646	178	57.4	32.8
MAX							2160	1610	1060	343	81	59
MIN							81	1040	357	83	26	18
AC-FT							18250	79680	38410	10940	3530	1950

06639000 SWEETWATER RIVER NEAR ALCOVA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT 18...	1500	34	450	8.4	12.0	6	9.7	K6	150	2	45
NOV 13...	1400	85	425	8.0	1.0	15	11.4	K12	130	0	39
DEC 11...	1500	54	430	8.1	.5	10	10.6	K1	150	11	45
JAN 15...	1500	E50	385	8.1	.5	8	12.4	K5	140	7	40
FEB 27...	1445	77	336	8.6	1.0	9	11.9	5	120	5	36
APR 11...	0850	93	405	--	4.0	10	10.7	14	130	0	22
MAY 13...	0850	1560	350	--	6.0	15	9.4	61	99	1	28
JUN 09...	0825	530	230	--	15.0	10	8.2	38	180	73	43
JUL 10...	0900	220	284	--	18.0	10	7.6	34	93	3	26
AUG 07...	0850	75	485	8.3	17.0	6	7.7	--	150	27	44
SEP 04...	0910	20	574	7.8	11.0	3	9.1	--	170	22	44

E-Estimate.
K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 18...	9.0	36	1.3	5.8	180	0	150	60	17	.4
NOV 13...	8.2	34	1.3	5.5	170	0	140	54	16	.4
DEC 11...	8.0	36	1.3	6.3	170	0	140	59	16	.4
JAN 15...	9.4	33	1.2	6.3	160	0	130	56	16	.4
FEB 27...	6.8	28	1.1	5.0	140	0	120	54	12	.2
APR 11...	17	28	1.1	5.4	160	0	130	40	14	.5
MAY 13...	7.1	24	1.0	5.0	120	0	98	40	8.8	.4
JUN 09...	18	25	.8	2.6	130	0	110	110	6.7	.6
JUL 10...	6.7	14	.6	2.4	110	0	90	25	7.2	.2
AUG 07...	8.5	27	1.0	5.8	150	0	120	53	16	.4
SEP 04...	14	33	1.1	5.2	180	0	150	72	20	.5

06639000 SWEETWATER RIVER NEAR ALCOVA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED (MG/L AS C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 18...	23	283	.38	26.0	.00	.020	--	--	14	1.3
NOV 13...	24	265	.36	60.8	.00	.050	--	--	86	20
DEC 11...	25	280	.38	40.8	.00	.000	--	--	21	3.1
JAN 15...	25	266	.36	35.9	.33	.010	3.1	--	12	1.6
FEB 27...	19	230	.31	47.8	.07	.020	--	--	23	4.8
APR 11...	19	225	.31	56.5	.03	.020	--	--	44	11
MAY 13...	15	188	.26	792	.14	.130	12	.8	--	--
JUN 09...	12	280	.38	401	.05	.020	--	--	30	43
JUL 10...	18	150	.20	89.1	.00	.040	--	--	41	24
AUG 07...	17	246	.33	49.8	.00	.010	--	--	19	3.8
SEP 04...	28	300	.41	16.2	.00	.010	--	--	10	.54

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDED RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS- PENDED TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, SUS- PENDED RECOV. (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM SUS- PENDED RECOV- ERABLE (UG/L AS CD)
JAN 15...	1500	280	260	20	3	0	3	0	0	<1	2	1
MAY 13...	0850	760	710	50	5	1	4	0	--	<1	0	--

DATE	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, SUS- PENDED RECOV. (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, SUS- PENDED RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDED RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, SUS- PENDED RECOV- ERABLE (UG/L AS PB)
JAN 15...	1	0	0	0	16	15	1	280	230	50	6	6
MAY 13...	<1	0	0	0	4	0	6	1300	1100	210	1	0

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LITHIUM SUS- PENDED RECOV- ERABLE (UG/L AS LI)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDED RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, SUS- PENDED RECOV. (UG/L AS MO)
JAN 15...	0	10	1	9	20	10	8	.0	.0	.0	0	0
MAY 13...	11	20	10	10	40	30	8	.0	.0	.0	2	--

06639000 SWEETWATER RIVER NEAR ALCOVA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
JAN											
15...	<10	15	13	2	0	0	0	3.0	0	0	7
MAY											
13...	<10	4	0	5	0	0	0	1.0	230	--	<3

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT											
18...	1500	18	1.4	8.0	2.4	8.2	2.7	.17	16	12	1.0
JAN											
15...	1500	17	<.4	10	1.7	9.6	1.9	.07	15	12	<.3
APR											
11...	0850	14	1.7	7.5	1.9	7.7	1.9	.08	12	9.5	1.2
AUG											
07...	0850	15	.5	6.8	.8	6.6	.7	.14	12	10	.3

06640500 PATHFINDER RESERVOIR NEAR ALCOVA, WY

LOCATION.--Lat 42°28'06", long 106°51'12", in NW¼SW¼ sec.24, T.29 N., R.84 W., Natrona County, Hydrologic Unit 10180003, in gatehouse near left end of dam on North Platte River and 9.0 mi (14.5 km) southwest of Alcova.

DRAINAGE AREA.--10,711 mi^2 (27,741 km^2), of which 700 mi^2 (1,813 km^2) is probably noncontributing.

PERIOD OF RECORD.--January 1909 to current year. Monthend figures only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,678.1 ft (1,730.68 m), National Geodetic Vertical Datum of 1929. Prior to Apr. 12, 1950, nonrecording gages near present site, and Apr. 12 to Sept. 30, 1950, water-stage recorder at present site, all at Water and Power Resources Service datum which was 1.9 ft (0.58 m) lower.

REMARKS.--Reservoir is formed by masonry dam. Storage began in April 1909. Capacity, 1,016,000 acre-ft (1,250 hm^3) between elevations 5,668.1 ft (1,727.64 m), north outlet trashrack sill, and 5,850.1 ft (1,783.11 m), crest of spillway. No dead storage. Figures given herein represent total contents. Water is used to irrigate lands in Wyoming and Nebraska under the North Platte project. Since December 1960, the water has been diverted directly through a tunnel to Fremont Canyon Powerplant, bypassing a section of river channel immediately below Pathfinder Dam.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,182,000 acre-ft (1,460 hm^3) June 25-27, 1917, elevation 5,858.86 ft (1,785.781 m), present datum; no storage at times during 1909-12, 1931, 1958-59.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 934,000 acre-ft (1,150 hm^3) May 30, elevation, 5,846.26 ft (1,781.940 m); minimum daily contents, 526,000 acre-ft (649 hm^3) Oct. 1, 2, minimum elevation, 5,822.14 ft (1,774.588 m) Oct. 1.

Capacity table (elevation, in feet,
and contents, in acre-feet)

5,822	524,000	5,835	720,000
5,825	564,000	5,840	810,000
5,830	638,000	5,847	979,000

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	526000	544000	583000	626000	678000	754000	861000	900000	931000	862000	769000	666000
2	526000	545000	584000	627000	680000	757000	865000	902000	930000	858000	766000	662000
3	528000	545000	586000	628000	682000	761000	868000	903000	928000	856000	761000	659000
4	529000	546000	587000	629000	684000	764000	871000	904000	927000	853000	758000	656000
5	531000	545000	587000	631000	686000	767000	875000	907000	925000	851000	754000	653000
6	531000	546000	588000	632000	687000	770000	878000	909000	924000	849000	751000	651000
7	531000	547000	588000	634000	689000	774000	881000	911000	923000	846000	747000	647000
8	531000	547000	590000	636000	690000	777000	884000	915000	921000	844000	744000	645000
9	531000	549000	592000	638000	691000	781000	887000	917000	920000	842000	740000	641000
10	531000	551000	594000	640000	692000	785000	890000	918000	918000	840000	739000	637000
11	531000	553000	596000	641000	694000	788000	894000	922000	916000	837000	732000	632000
12	531000	554000	597000	643000	696000	791000	896000	924000	914000	835000	728000	629000
13	532000	556000	599000	646000	697000	795000	899000	925000	912000	832000	725000	625000
14	532000	559000	600000	648000	698000	798000	902000	926000	910000	830000	721000	620000
15	532000	560000	601000	650000	700000	802000	905000	927000	908000	827000	719000	616000
16	533000	561000	603000	651000	704000	806000	907000	928000	906000	824000	715000	612000
17	534000	562000	604000	652000	708000	810000	909000	928000	904000	820000	712000	607000
18	535000	562000	605000	654000	712000	813000	909000	928000	901000	816000	708000	604000
19	535000	564000	607000	655000	715000	816000	907000	928000	899000	813000	704000	600000
20	536000	546000	608000	657000	720000	820000	905000	927000	896000	810000	700000	595000
21	536000	568000	610000	658000	723000	819000	903000	928000	894000	807000	697000	591000
22	537000	570000	611000	659000	727000	827000	902000	930000	891000	804000	694000	588000
23	538000	571000	613000	660000	730000	829000	900000	930000	887000	801000	692000	584000
24	538000	572000	614000	663000	733000	833000	899000	931000	885000	796000	689000	580000
25	539000	574000	614000	664000	737000	836000	898000	931000	881000	794000	686000	578000
26	540000	575000	615000	666000	740000	839000	897000	932000	878000	789000	684000	574000
27	541000	577000	616000	669000	744000	843000	896000	933000	875000	786000	689000	572000
28	541000	578000	618000	671000	747000	847000	896000	933000	871000	783000	678000	568000
29	542000	580000	620000	673000	751000	851000	898000	932000	868000	778000	674000	566000
30	542000	581000	621000	674000	---	854000	899000	934000	864000	775000	670000	564000
31	542000	---	623000	675000	---	857000	---	932000	---	773000	669000	---
MAX	542000	581000	623000	675000	751000	857000	909000	934000	931000	862000	769000	666000
MIN	526000	544000	583000	626000	678000	754000	861000	900000	864000	773000	669000	564000
(†)	5,823.38	5,826.18	5,829.06	5,832.36	5,836.80	5,842.48	5,844.56	5,846.16	5,842.84	5,838.00	5,831.94	5,824.96
(‡)	+16,000	+39,000	+42,000	+52,000	+76,000	+106,000	+42,000	+33,000	-68,000	-91,000	-104,000	-105,000

CAL YR 1979 MAX 811000 MIN 526000 ‡+81,000
WTR YR 1980 MAX 934000 MIN 526000 ‡+38,000
(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

06641500 ALCOVA RESERVOIR AT ALCOVA, WY

LOCATION.--Lat 42°32'52", long 106°43'08", in SE¼SE¼ sec.24, T.30 N., R.83 W., Natrona County, Hydrologic Unit 10180007, in elevator shaft at right end of dam on North Platte River and 0.2 mi (0.3 km) southwest of Alcova.

DRAINAGE AREA.--10,766 mi^2 (27,884 km^2), of which 700 mi^2 (1,813 km^2) is probably noncontributing.

PERIOD OF RECORD.--February 1938 to current year. Prior to October 1950 monthend figures only, published in WSP 1310.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder for elevations above 5,447.00 ft (1,660.246 m). Datum of gage is 5,320 ft (1,621.5 m), National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service). Prior to June 27, 1955, nonrecording gages near present site at same datum.

REMARKS.--Reservoir is formed by rock-fill dam completed in January 1938; storage began Feb. 8, 1938. Capacity, 184,300 acre-ft (227 hm^3) at elevation 5,500.00 ft (1,676.400 m), top of spillway gates. Dead storage, 100 acre-ft (0.123 hm^3). Figures given herein represent total contents. Usable contents published prior to October 1956. Water is used for irrigation in North Platte River basin.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 190,300 acre-ft (235 hm^3) Aug. 14, 15, 1952, elevation, 5,499.92 ft (1,676.376 m); minimum daily (since appreciable storage was attained), 1,980 acre-ft (2.44 hm^3) Sept. 30, 1940, elevation, 5,353.56 ft (1,631.765 m). No usable storage prior to February 1938.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 183,000 acre-ft (226 hm^3) Aug. 19, 20; minimum elevation, 5,499.37 ft (1,676.208 m) Aug. 20; minimum daily contents, 154,000 acre-ft (190 hm^3) Jan. 15, 16; minimum elevation, 5,487.24 ft (1,672.511 m) Jan. 15.

Capacity table (elevation, in feet, and contents, in acre-feet)

5,487	154,000	5,495	172,000
5,490	160,000	5,500	184,000

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179000	157000	155000	155000	156000	155000	158000	182000	177000	181000	180000	178000
2	178000	157000	155000	155000	156000	155000	158000	181000	177000	181000	180000	179000
3	177000	157000	155000	155000	156000	156000	158000	181000	177000	180000	180000	179000
4	176000	157000	155000	156000	156000	156000	157000	180000	178000	180000	180000	179000
5	175000	158000	156000	156000	156000	156000	158000	180000	178000	179000	180000	179000
6	174000	158000	156000	156000	156000	156000	158000	181000	178000	179000	181000	179000
7	174000	158000	157000	155000	156000	157000	160000	181000	178000	180000	181000	179000
8	174000	157000	157000	156000	156000	157000	158000	180000	178000	180000	181000	179000
9	173000	157000	157000	155000	156000	156000	159000	179000	178000	180000	181000	179000
10	172000	157000	157000	155000	157000	156000	160000	180000	179000	180000	181000	179000
11	172000	157000	157000	156000	157000	156000	161000	180000	179000	180000	181000	179000
12	171000	157000	157000	156000	157000	156000	162000	180000	179000	180000	181000	179000
13	170000	156000	157000	155000	157000	156000	164000	180000	179000	180000	181000	179000
14	169000	156000	157000	155000	158000	156000	164000	180000	179000	180000	181000	179000
15	169000	156000	157000	154000	157000	157000	164000	180000	179000	180000	181000	178000
16	169000	156000	157000	154000	157000	157000	165000	180000	179000	179000	182000	179000
17	168000	156000	157000	155000	156000	157000	166000	179000	180000	179000	182000	179000
18	167000	156000	157000	155000	155000	157000	167000	179000	180000	179000	182000	178000
19	166000	156000	157000	155000	155000	156000	169000	179000	180000	180000	183000	178000
20	166000	157000	157000	155000	155000	156000	170000	179000	180000	180000	183000	178000
21	165000	156000	157000	156000	155000	157000	171000	179000	181000	180000	182000	179000
22	164000	156000	157000	157000	155000	157000	172000	179000	180000	179000	181000	178000
23	163000	156000	157000	157000	156000	157000	173000	179000	181000	179000	180000	178000
24	162000	156000	157000	158000	155000	157000	173000	178000	181000	179000	179000	179000
25	161000	155000	157000	157000	155000	158000	174000	177000	181000	179000	179000	179000
26	160000	155000	156000	158000	155000	158000	175000	177000	181000	179000	179000	179000
27	159000	155000	156000	158000	155000	158000	176000	177000	180000	179000	178000	179000
28	159000	155000	156000	156000	155000	157000	177000	177000	181000	179000	179000	179000
29	159000	155000	156000	156000	155000	157000	179000	177000	181000	179000	178000	179000
30	159000	155000	155000	156000	---	157000	181000	177000	181000	179000	178000	179000
31	158000	---	155000	157000	---	157000	---	177000	---	180000	179000	---
MAX	179000	158000	157000	158000	158000	158000	181000	182000	181000	181000	183000	179000
MIN	158000	155000	155000	154000	155000	155000	157000	177000	177000	179000	178000	178000
(†)	5,488.75	5,487.65	5,487.61	5,488.48	5,487.51	5,488.66	5,498.51	5,497.16	5,498.71	5,498.05	5,497.71	5,497.72
(‡)	-21,000	-3,000	0	+2,000	-2,000	+2,000	+24,000	-4,000	+4,000	-1,000	-1,000	0

CAL YR 1979 MAX 182000 MIN 154000 ‡-1,000
WTR YR 1980 MAX 183000 MIN 154000 ‡0
(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

06642000 NORTH PLATTE RIVER AT ALCOVA, WY

LOCATION.--Lat 42°34'27", long 106°41'31", in NW¼NE¼NW¼ sec.17, T.30 N., R.82 W., Natrona County, Hydrologic Unit 10180007, on left bank 0.5 mi (0.8 km) downstream from Hogback Draw, 0.8 mi (1.3 km) downstream from Gray Reef Dam, 1.9 mi (3.1 km) northeast of Alcova, and 3.8 mi (6.1 km) downstream from Alcova Dam.

DRAINAGE AREA.--10,812 mi² (28,003 km²), of which 700 mi² (1,813 km²) is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1904 to December 1905, October 1934 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1937-38, 1945. WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,299.40 ft (1,615.257 m), National Geodetic Vertical Datum of 1929. Feb. 19, 1904, to Dec. 31, 1905, nonrecording gage at site 3.7 mi (6.0 km) upstream at different datum. June 1, 1935, to Apr. 27, 1961, water-stage recorder at site 3.5 mi (5.6 km) upstream at different datum.

REMARKS.--Records good. Flow completely regulated by Seminoe, Pathfinder, and Alcova Reservoirs. (See sta 06635500, 06640500, 06641500.) Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Eleven discharge measurements furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 13,400 ft³/s (379 m³/s) June 6, 10, 11, 1905, gage height, 11.5 ft (3.51 m), site and datum then in use; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,070 ft³/s (86.9 m³/s) June 1, gage height, 4.17 ft (1.271 m); maximum gage height, 4.25 ft (1.295 m) Aug. 23; minimum daily discharge, 461 ft³/s (13.1 m³/s) Apr. 9-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1400	1410	911	920	862	920	911	2220	2950	2840	2410	2400
2	1420	1170	895	936	870	920	920	2360	2760	2540	2420	2390
3	1420	981	895	953	870	920	911	2430	2620	2390	2370	2420
4	1420	970	903	944	870	911	953	2400	2640	2380	2400	2380
5	1400	970	911	953	920	928	996	2250	2650	2390	2390	2480
6	1400	961	911	953	936	920	1000	1990	2650	2320	2380	2510
7	1430	961	895	944	936	928	996	1760	2620	2100	2410	2520
8	1420	970	895	953	928	911	739	1640	2640	2090	2380	2510
9	1420	961	920	936	920	911	461	1680	2610	2100	2480	2490
10	1420	975	920	847	928	911	461	1680	2590	2100	2510	2520
11	1420	967	895	870	920	920	461	1680	2610	2140	2510	2520
12	1420	972	911	911	920	928	461	1840	2620	2180	2490	2490
13	1420	972	903	920	920	911	669	2220	2590	2190	2490	2490
14	1410	973	903	944	920	911	987	2220	2610	2190	2450	2490
15	1410	977	903	953	920	920	1220	2180	2610	2180	2400	2490
16	1420	965	903	953	911	911	1400	2170	2620	2170	2380	2480
17	1430	970	911	944	903	911	1400	2210	2610	2170	2390	2490
18	1430	970	895	936	895	895	1640	2180	2590	2180	2460	2510
19	1440	961	903	936	911	903	1800	2200	2740	2180	2550	2490
20	1430	953	895	920	920	911	2230	2160	2790	2190	2530	2490
21	1430	944	903	732	920	911	2430	2130	2740	2180	2740	2360
22	1430	953	911	732	911	911	2430	2120	2800	2180	2960	2240
23	1420	953	911	740	903	903	2430	2120	2770	2370	2980	2200
24	1410	944	911	740	920	903	2430	2130	2820	2550	2710	2180
25	1400	944	903	755	920	911	2250	2130	2770	2520	2480	2120
26	1390	936	920	740	911	911	2030	2130	2800	2470	2420	2090
27	1390	936	920	747	911	920	2030	2090	2850	2430	2430	2100
28	1400	936	911	777	911	920	2030	2310	2770	2430	2400	2090
29	1420	920	920	800	920	920	2000	2550	2820	2430	2410	1950
30	1400	903	920	792	---	911	2010	2540	2790	2430	2410	1780
31	1410	---	920	808	---	911	---	2730	---	2420	2400	---
TOTAL	43880	29378	28128	26989	26407	28333	42686	66450	81050	71430	77140	70670
MEAN	1415	979	907	871	911	914	1423	2144	2702	2304	2488	2356
MAX	1440	1410	920	953	936	928	2430	2730	2950	2840	2980	2520
MIN	1390	903	895	732	862	895	461	1640	2590	2090	2370	1780
AC-FT	87040	58270	55790	53530	52380	56200	84670	131800	160800	141700	153000	140200

CAL YR 1979 TOTAL 492339 MEAN 1349 MAX 3680 MIN 502 AC-FT 976600
WTR YR 1980 TOTAL 592541 MEAN 1619 MAX 2980 MIN 461 AC-FT 1175000

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to September 1969, October 1979 to September 1980.
WATER TEMPERATURES: October 1965 to September 1969, October 1979 to September 1980.
DISSOLVED SOLIDS: October 1965 to September 1969.
HARDNESS: October 1965 to September 1969.

REMARKS.--Daily samples for chemical analyses composited for discharge October 1965 to September 1969.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 831 micromhos June 17, 1967; minimum daily, 410 micromhos Aug. 1-2, 1980.
WATER TEMPERATURES: Maximum, 23°C Sept. 21, 1966; minimumum, 0.0°C Dec. 26, 1967, Jan. 5, 1968, and on several days during 1969.
DISSOLVED SOLIDS: Maximum, 462 mg/L July 1-6, 1967; minimum, 273 mg/L June 1-30, 1969.
HARDNESS: Maximum, 248 mg/L June 1-30, 1967; minimum, 159 mg/L Apr. 1-30, 1966.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 477 micromhos Feb. 24; minimum daily, 410 micromhos Aug. 1, 2.
WATER TEMPERATURES: Maximum daily, 18.0°C Aug. 24-29, Sept. 7-10, 12-17; minimum daily, 0.5°C Jan. 19, 20.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 16...	1530	1430	475	8.3	14.0	35	8.4	--	26	--	190
NOV 13...	1730	972	480	8.2	8.0	10	11.2	23	K6	--	180
DEC 27...	1435	911	520	8.4	2.0	5	12.9	16	K1	36	190
FEB 06...	1225	950	520	8.9	2.0	1	13.1	17	K1	--	160
MAR 11...	1045	932	445	--	2.5	6	13.6	20	<1	K1	190
APR 11...	1345	484	440	--	3.5	7	12.4	19	K1	<1	180
MAY 13...	1430	2280	495	--	4.5	6	14.0	39	K2	K10	170
JUN 09...	1335	2620	470	--	12.0	3	11.2	--	K1	K5	84
JUL 10...	1410	2080	513	--	14.5	10	10.2	11	K1	K6	170
AUG 07...	1350	2400	520	8.4	17.0	9	10.0	12	K4	K8	180
SEP 04...	1245	2360	540	--	18.0	15	9.2	--	K1	K7	180

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 16...	67	55	13	31	1.0	4.5	150	0	120	120	9.5
NOV 13...	64	49	15	31	1.0	3.6	140	0	120	120	8.8
DEC 27...	66	48	16	30	1.0	2.9	140	0	120	120	7.6
FEB 06...	41	43	13	29	1.0	3.1	--	--	120	110	8.6
MAR 11...	67	50	15	29	.9	3.0	160	0	120	120	8.8
APR 11...	72	48	15	31	1.0	3.0	150	0	110	110	12
MAY 13...	55	45	14	28	.9	3.0	140	0	110	110	6.6
JUN 09...	0	25	4.9	14	.7	2.9	110	0	90	25	4.2
JUL 10...	68	45	15	29	1.0	3.2	130	--	120	100	7.9
AUG 07...	57	46	15	27	.9	3.4	140	0	120	110	7.6
SEP 04...	69	47	15	30	1.0	3.5	140	0	110	120	8.7

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)
OCT 16...	.3	13	--	322	.44	1240	--	--	.20	--	--
NOV 13...	.4	12	302	[illegible]	.43	821	--	.16	.17	.080	.080
DEC 27...	.5	12	313	310	.42	763	7	.25	.23	.010	.010
FEB 06...	.4	11	317	291	.40	746	56	.22	.22	.020	.020
MAR 11...	.3	11	303	310	.42	780	0	.15	.15	.030	.030
APR 11...	.3	12	312	298	.41	389	8	--	.11	--	.000
MAY 13...	.3	12	286	288	.39	1770	17	.13	.12	.000	.020
JUN 09...	.3	16	--	140	.19	990	190	--	.01	--	--
JUL 10...	.4	11	304	284	.39	1600	13	.00	.00	.000	.010
AUG 07...	.4	11	300	293	.40	1900	6	.09	.08	.040	.040
SEP 04...	.3	12	356	303	.41	1930	--	.11	.04	.000	.000

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, DISSOLVED (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 16...	--	--	--	--	--	--	--	--	--	--	.120
NOV 13...	.10	.10	.58	--	.66	--	--	.82	--	3.6	.020
DEC 27...	.01	.01	1.1	1.1	1.1	.00	1.1	1.4	1.3	6.0	.020
FEB 06...	.02	.03	.45	.47	.47	.00	.49	.69	.71	3.1	.040
MAR 11...	.04	.04	.37	.59	.40	.00	.62	.55	.77	2.4	.010
APR 11...	--	.00	--	.43	--	--	.43	--	.54	--	.020
MAY 13...	.00	.03	1.1	.40	1.1	.68	.42	1.2	.57	5.4	.030
JUN 09...	--	--	--	--	--	--	--	--	--	--	.050
JUL 10...	.00	.01	.93	.49	.93	.43	.50	.93	.50	4.1	.030
AUG 07...	.05	.05	1.3	1.2	1.3	.10	1.2	1.4	1.3	6.2	.040
SEP 04...	.00	.00	.82	.81	.82	.01	.81	.93	.85	4.1	.030

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	PHOSPHORUS, TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)	PHYTOPLANKTON, TOTAL (CELLS PER ML)	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	BIOMASS CHLOROPHYLL RATIO PERIPHYTON (UNITS)	CHLOR-A PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2)	CHLOR-B PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2)
OCT 16...	--	--	--	--	--	--	--	--	--	--	--
NOV 13...	.06	.010	--	6.3	.1	620	--	--	--	--	--
DEC 27...	.06	.010	5.5	--	--	--	--	--	--	--	--
FEB 06...	.12	.030	--	5.6	--	--	--	--	--	--	--
MAR 11...	.03	.020	5.7	--	--	110	--	--	--	--	--
APR 11...	--	.030	--	9.6	.1	--	25.2	30.6	261	20.7	19.3
MAY 13...	.46	.020	5.4	--	--	950	--	--	--	--	--
JUN 09...	--	--	--	--	--	620	--	--	--	--	--
JUL 10...	.09	.020	--	9.4	.1	520	--	--	--	--	--
AUG 07...	.12	.030	7.3	--	--	120	--	--	--	--	--
SEP 04...	.09	.010	7.8	--	--	4100	--	--	--	--	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
NOV 13...	1730	3	1	2	400	400	50	5	0	6	0
DEC 27...	1435	--	--	--	--	--	--	--	--	--	--
FEB 06...	1225	3	0	3	0	0	40	0	0	<1	10
MAR 11...	1045	--	--	--	--	--	--	--	--	--	--
APR 11...	1345	3	0	3	100	50	50	0	0	<1	0
JUL 10...	1410	3	1	2	100	50	50	0	--	<1	0
SEP 04...	1245	--	--	--	--	--	--	--	--	--	--

DATE	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
NOV 13...	0	0	3	0	<3	3	2	1	450	380	70
DEC 27...	--	--	--	--	--	--	--	--	--	--	--
FEB 06...	10	0	0	0	<3	3	0	7	250	240	10
MAR 11...	--	--	--	--	--	--	--	--	--	--	--
APR 11...	0	0	0	0	<3	3	0	17	230	220	<10
JUL 10...	0	0	0	--	<3	8	5	3	290	280	10
SEP 04...	--	--	--	--	--	--	--	--	--	--	--

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI)
NOV											
13...	3	3	0	30	20	10	.1	.1	.0	6	6
DEC											
27...	--	--	--	--	--	--	--	--	--	--	--
FEB											
06...	2	1	1	20	10	7	.0	.0	.0	2	2
MAR											
11...	--	--	--	--	--	--	--	--	--	--	--
APR											
11...	0	0	0	0	0	10	.2	.2	.0	5	1
JUL											
10...	9	9	0	20	20	5	.0	.0	.0	8	6
SEP											
04...	--	--	--	--	--	--	--	--	--	--	--

DATE	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV										
13...	0	1	0	1	0	0	0	60	40	20
DEC										
27...	--	--	--	--	0	--	--	--	--	--
FEB										
06...	0	1	0	1	0	0	0	30	10	20
MAR										
11...	--	--	--	--	0	--	--	--	--	--
APR										
11...	4	1	0	1	0	0	0	0	0	6
JUL										
10...	2	1	0	1	0	0	0	50	50	4
SEP										
04...	--	--	--	--	0	--	--	--	--	--

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	443	451	448	---	454	434	427	456	410	---
2		---	456	444	456	---	443	430	427	447	410	---
3		---	443	444	456	---	445	430	423	447	440	---
4		---	454	446	450	---	441	425	422	447	442	---
5		---	456	454	454	---	439	430	422	458	442	---
6		---	450	452	459	---	445	430	---	458	445	---
7		---	450	454	456	---	441	430	---	463	436	446
8		---	456	448	448	---	435	427	---	454	436	452
9		---	448	450	447	---	452	430	---	454	436	443
10		---	448	454	441	---	452	429	---	459	447	452
11		---	448	450	450	450	452	434	---	454	440	446
12		---	457	456	450	452	452	432	---	454	445	449
13		---	452	460	454	455	435	430	---	454	440	452
14		---	452	450	452	455	439	425	---	470	440	449
15		---	448	456	450	---	439	423	421	470	445	453
16		---	452	450	452	---	439	423	426	470	445	451
17		---	447	450	447	---	445	423	433	470	445	455
18		---	450	452	472	439	439	423	422	470	445	457
19		---	450	448	450	445	445	425	433	470	445	457
20		---	450	452	445	425	433	420	433	470	445	453
21		---	447	447	450	450	437	420	428	470	442	451
22		---	448	443	455	447	437	422	433	470	447	455
23		---	445	448	455	448	443	425	433	472	447	457
24		---	450	456	477	448	441	425	434	466	442	455
25		---	450	462	---	443	437	427	435	476	442	---
26		---	454	456	---	443	435	427	435	476	442	---
27		---	453	458	---	439	431	422	435	476	453	---
28		---	451	445	---	447	431	422	431	466	453	---
29		---	446	448	---	448	425	422	430	476	453	---
30		439	451	454	---	448	431	422	435	476	---	---
31		---	447	448	---	447	---	420	---	472	---	---
MEAN		439	450	451	453	446	440	426	429	464	441	452

WTR YR 1980 MEAN 445 MAX 477 MIN 410

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	4.0	3.0	2.5	---	4.0	7.0	9.5	15.0	---	---
2		---	4.0	3.0	2.5	---	4.0	7.5	9.5	15.0	---	---
3		---	5.0	2.0	3.0	---	4.5	8.0	9.5	16.0	14.0	---
4		---	5.0	2.5	3.0	---	4.5	8.5	9.5	16.0	14.0	---
5		---	4.5	3.0	2.5	---	5.0	8.5	10.0	16.0	15.0	---
6		---	4.5	1.0	2.5	---	5.0	8.5	---	16.0	15.0	---
7		---	4.0	2.0	1.5	---	5.0	8.5	---	16.0	16.0	18.0
8		---	5.0	1.5	1.5	---	5.0	8.5	---	15.0	16.0	18.0
9		---	5.0	---	2.0	---	4.5	8.5	---	16.0	16.0	18.0
10		---	4.5	---	2.0	---	5.0	7.0	---	16.0	16.0	18.0
11		---	2.5	---	2.0	4.0	5.5	6.5	---	16.0	16.0	17.5
12		---	1.5	---	2.5	3.5	5.0	6.5	---	16.0	16.0	18.0
13		---	2.5	2.0	2.5	4.0	6.5	6.5	---	---	16.0	18.0
14		---	3.5	2.0	2.0	4.0	6.5	7.0	---	16.0	16.5	18.0
15		---	3.0	1.5	2.0	---	6.5	7.5	10.0	15.0	16.5	18.0
16		---	2.5	3.0	1.5	---	6.5	7.5	10.0	16.0	16.5	18.0
17		---	3.5	2.0	3.0	---	6.5	8.0	10.0	16.0	16.5	18.0
18		---	3.5	1.5	3.5	3.5	6.5	8.0	10.5	15.0	16.5	17.0
19		---	3.5	.5	3.0	4.0	6.5	9.0	10.5	15.0	17.0	17.0
20		---	4.0	.5	3.0	4.0	7.0	9.5	10.5	15.0	17.0	17.0
21		---	4.0	---	3.5	4.5	7.0	10.0	10.5	15.0	17.0	16.0
22		---	4.0	2.0	4.0	4.5	6.5	10.0	10.5	15.0	17.5	16.0
23		---	4.0	2.0	3.0	5.0	6.5	10.0	11.0	15.0	17.5	16.0
24		---	3.0	1.5	3.0	5.0	7.0	10.0	12.0	15.0	18.0	16.0
25		---	3.0	---	---	4.5	7.5	9.5	13.0	15.0	18.0	---
26		---	2.0	---	---	4.5	7.5	9.5	14.0	14.0	18.0	---
27		---	3.0	---	---	5.0	8.0	9.5	14.0	15.0	18.0	---
28		---	3.0	---	---	4.0	8.0	9.5	15.0	15.0	18.0	---
29		---	2.5	---	---	4.0	8.5	9.5	15.0	15.0	18.0	---
30		3.0	2.0	2.0	---	3.5	7.0	9.5	15.0	15.0	---	---
31		---	2.5	2.0	---	4.0	---	9.5	---	16.0	---	---
MEAN		3.0	3.5	2.0	2.5	4.0	6.0	8.5	11.5	15.5	16.5	17.5

WTR YR 1980 MEAN 8.5 MAX 18.0 MIN .5

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	NOV 13,79	MAR 11,80	MAY 13,80	JUN 9,80
TIME	1730	1045	1430	1335
TOTAL CELLS/ML	620	110	950	620
DIVERSITY: DIVISION	1.2	0.5	0.2	1.0
.CLASS	1.7	0.5	0.2	1.0
..ORDER	2.0	1.3	0.8	1.2
...FAMILY	2.8	2.3	1.0	1.8
....GENUS	2.9	2.3	1.0	1.8

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	27	4	--	-	13	1	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	14	2	14	13	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-
..ULOTRICHALES								
...CHAETOPHORACEAE								
....STIGEOCLONIUM	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	13	1	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	27	4	29#	25	790#	82	13	2
....MELOSIRA	--	-	--	-	--	-	--	-
....STEPHANODISCUS	14	2	--	-	--	-	13	2
..PENNALES								
...ACHNANTHACEAE								
....COCCONEIS	41	7	--	-	--	-	--	-
....RHOICOSPHENIA	27	4	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	41	7	--	-	64	7	260#	42
...FRAGILARIACEAE								
....FRAGILARIA	--	-	--	-	26	3	--	-
....SYNEDRA	--	-	29#	25	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	13	2
...NAVICULACEAE								
....NAVICULA	140#	22	29#	25	--	-	52	8
...NITZSCHIACEAE								
....NITZSCHIA	14	2	14	13	52	5	13	2
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	110#	18	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..HORMOGONALES								
...NOSTOCACEAE								
....APHANIZOMENON	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	160#	27	--	-	--	-	260#	42

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PHYTOPLANKTON ANALYSES

DATE	JUL 10,80	AUG 7,80	SEP 4,80
TIME	1410	1350	1245
TOTAL CELLS/ML	520	120	4100
DIVERSITY: DIVISION	1.5	0.0	0.2
.CLASS	1.5	0.0	0.2
..ORDER	1.8	0.8	0.2
...FAMILY	2.2	2.4	0.2
....GENUS	2.2	2.4	0.2

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	--	-	--	-	*	0
...OOCYSTACEAE						
....ANKISTRODESMUS	--	-	--	-	*	0
....SELENASTRUM	--	-	--	-	*	0
..ULOTRICHALES						
...CHAETOPHORACEAE						
....STIGEOCLONIUM	130#	25	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	--	-	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	26	5	26#	22	--	-
....MELOSIRA	--	-	--	-	*	0
....STEPHANODISCUS	13	2	--	-	*	0
..PENNALES						
...ACHNANTHACEAE						
....COCCONEIS	--	-	--	-	--	-
....RHOICOSPHENIA	13	2	39#	33	--	-
...DIATOMACEAE						
....DIATOMA	13	2	13	11	--	-
...FRAGILARIACEAE						
....FRAGILARIA	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	--	-
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	13	11	--	-
...NAVICULACEAE						
....NAVICULA	26	5	13	11	*	0
...NITZSCHIACEAE						
....NITZSCHIA	65	13	13	11	--	-
.CHRYSOPHYCEAE						
..CHRYSOMONADALES						
...OCHROMONADACEAE						
....OCHROMONAS	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..HORMOGONALES						
...NOSTOCACEAE						
....APHANIZOMENON	--	-	--	-	4000#	98
...OSCILLATORIACEAE						
....OSCILLATORIA	230#	45	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06643000 BATES CREEK NEAR ALCOVA, WY

LOCATION.--Lat 42°40'34", long 106°36'09", in SE¼SE¼ sec.1, T.31 N., R.82 W., Natrona County, Hydrologic Unit 10180007, at former gaging station, 2.8 mi (4.5 km) upstream from mouth, and 10.5 mi (16.9 km) northeast of Alcova.

DRAINAGE AREA.--393 mi² (1,018 km²).

PERIOD OF RECORD.--Water years 1957-58, 1970 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)
OCT							
16...	1620	4.7	1700	8.1	11.0	20	8.2
NOV							
15...	1300	7.0	1660	8.0	4.0	7	11.4
DEC							
11...	1710	15	1300	8.0	1.0	20	11.6
JAN							
15...	1640	25	990	8.0	3.0	20	11.7
FEB							
27...	1605	22	1170	8.2	5.5	30	10.3
APR							
18...	0950	6.2	1483	--	10.5	1000	9.2
JUN							
09...	1450	4.6	1770	--	23.5	4	9.2
JUL							
10...	1515	1.4	1920	--	26.0	20	7.4
AUG							
07...	1430	2.4	1880	8.1	25.0	3	8.1
SEP							
04...	1410	1.9	1940	--	20.5	2	9.4

06643510 NORTH PLATTE RIVER ABOVE POISON SPIDER CREEK, NEAR GOOSE EGG, WY

LOCATION.--Lat 42°46'18", long 106°31'48", in NW¼SW¼NE¼ sec.3, T.32 N., R.81 W., Natrona County, Hydrologic Unit 10180007, at bridge on county road, 0.3 mi (0.5 km) upstream from Poison Spider Creek, and 2.4 mi (3.9 km) west of Goose Egg.

PERIOD OF RECORD.--November 1977 to November 1979 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)
OCT											
12...	1050	1480	540	14.0	9.4	10	3	7	332	.45	1330
24...	1020	1440	525	11.0	9.5	15	37	3	327	.44	1270
NOV											
08...	1015	1010	600	7.5	12.4	15	27	7	338	.46	922

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
12...	17	.10	.090	.11	.87	.96	1.1	4.7	.020	.06	6.8
24...	32	.19	.000	.00	.77	.77	.96	4.3	.050	.15	5.6
NOV											
08...	16	.19	.020	.02	.52	.54	.73	3.2	.030	.09	15

06644085 NORTH PLATTE RIVER AT MILLS, WY

LOCATION.--Lat 42°50'31", long 106°21'33", in NW¼NE¼SE¼ sec.7, T.33 N., R.79 W., Natrona County, Hydrologic Unit 10180007, at railroad bridge, 700 ft (213 m) upstream from Casper Creek, 900 ft (274 m) east of Mills city limits, and 0.2 mi (0.3 km) upstream from bridge on U.S. Highways 20 and 26.

PERIOD OF RECORD.--Water years 1970 to current year.

REMARKS.--Discharge records furnished by Water and Power Resources Service.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
DEC									
03...	1350	880	650	9.2	2.5	20	11.2	--	--
JAN									
15...	1210	900	670	8.6	1.0	25	10.8	--	--
FEB									
28...	1020	920	690	8.5	3.0	40	--	--	--
MAR									
31...	1050	950	598	--	2.0	20	11.1	.00	3
MAY									
01...	1310	2000	560	--	9.0	15	10.0	--	3
JUN									
06...	1300	2820	--	--	13.0	8	--	--	--
20...	1050	2580	550	--	14.0	10	8.6	--	--
26...	0845	2740	478	--	14.5	10	8.4	--	2
JUL									
01...	0905	2620	551	--	14.0	10	8.1	--	--
09...	1005	2060	570	--	16.5	15	7.7	--	--
21...	0910	2200	570	8.2	16.0	15	7.8	.00	3
31...	0925	2510	551	8.4	16.5	10	7.5	--	--
AUG									
06...	0835	2450	575	8.4	16.0	15	7.6	--	--
15...	0940	2510	570	8.4	17.0	20	7.4	--	--
20...	1030	2600	600	8.2	15.5	20	8.2	--	2
29...	0935	2700	587	8.5	16.5	15	--	--	--
SEP									
09...	0840	2480	597	8.1	14.0	15	7.8	--	--
18...	1035	2490	670	8.4	15.5	--	8.2	--	40
26...	1055	2100	545	8.5	14.0	--	8.0	--	--

06644500 CASPER CREEK AT CASPER, WY

LOCATION.--Lat 42°50'52", long 106°21'52", in NW¼NE¼ sec.7, T.33 N., R.79 W., Natrona County, Hydrologic Unit 10180007, at Water and Power Resources Service gaging station, 700 ft (213 m) upstream from bridge on U.S. Highways 20 and 26, 0.4 mi (0.6 km) upstream from mouth, and 2.0 mi (3.2 km) west of city hall in Casper.

DRAINAGE AREA.--668 mi^2 (1,730 km^2), of which 98 mi^2 (254 km^2) is probably noncontributing.

PERIOD OF RECORD.--Water years 1970 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)
DEC							
03...	1320	5.7	7500	8.2	5.0	20	10.4
JAN							
15...	1140	13	8000	8.4	3.5	20	10.4
FEB							
28...	1115	22	4360	8.5	6.5	20	--
MAR							
31...	1045	12	5200	--	1.5	5	11.2
MAY							
01...	1255	7.7	5400	--	17.0	3	10.0
JUN							
06...	1240	20	--	--	22.5	10	--
20...	1030	16	3420	--	19.0	9	9.0
26...	0950	9.9	3640	--	18.0	5	9.4
JUL							
01...	0840	9.2	3820	--	14.5	6	8.5
09...	0940	10	3670	--	18.5	15	9.2
21...	0850	15	3160	8.1	16.5	20	8.0
31...	0910	18	2870	8.2	18.0	10	7.7
AUG							
06...	0820	13	3200	8.1	14.5	15	8.0
15...	0830	22	2600	8.2	17.0	20	6.8
20...	1055	26	2790	8.4	16.0	20	9.2
29...	0955	20	2880	8.5	15.5	20	--
SEP							
09...	0815	E23	3310	8.2	11.0	20	8.1
18...	1020	7.6	4110	8.3	12.0	--	9.3
26...	1040	11	4030	8.3	10.0	--	9.8

E-Estimate.

06644550 NORTH PLATTE RIVER AT CASPER, WY

LOCATION.--Lat 42°51'26", long 106°19'09", in SE¼SE¼NW¼ sec.4, T.33 N., R.79 W., Natrona County, Hydrologic Unit 10180007, at bridge on service road, 800 ft (244 m) west of Center Street exit from Interstate Highway 25, and 0.6 mi (1.0 km) northwest of Casper Post Office.

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Discharge records furnished by Water and Power Resources Service.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)
DEC									
03...	1210	880	690	8.7	1.0	10	11.6	39	93
JAN									
15...	1030	900	740	8.7	.5	20	10.0	68	165
FEB									
29...	1130	920	810	8.4	2.5	50	--	171	425
MAR									
31...	0950	950	634	--	2.0	9	11.1	51	131
MAY									
01...	1025	2000	560	--	8.5	15	10.7	95	513
JUN									
06...	1150	2820	--	--	13.0	9	--	--	--
20...	0920	2580	588	--	13.5	10	8.9	--	--
26...	1010	2740	551	--	15.5	10	8.6	--	--
JUL									
01...	0945	2620	584	--	14.0	10	8.1	54	382
09...	1030	2060	595	--	17.0	15	8.4	--	--
21...	1010	2220	600	8.2	16.5	15	7.6	45	270
31...	0945	2510	585	8.4	16.5	15	7.6	--	--
AUG									
06...	0855	2450	600	8.4	16.5	15	7.3	--	--
15...	0800	2510	590	8.4	18.0	20	7.3	--	--
20...	1145	2600	625	8.4	16.0	20	8.5	--	--
29...	0915	2700	631	8.3	16.5	15	7.8	--	--
SEP									
09...	0910	2480	617	8.5	14.0	15	7.6	--	--
18...	1110	2490	686	8.5	16.0	--	8.2	--	--
26...	1130	2100	570	8.3	14.0	--	8.5	37	210

06645000 NORTH PLATTE RIVER BELOW CASPER, WY

LOCATION.--Lat 42°51'40", long 106°12'53", in SE¼NW¼NW¼ sec.4, T.33 N., R.78 W., Natrona County, Hydrologic Unit 10180007, at New Mystery Bridge, 0.1 mi (0.2 km) upstream from Claude Creek, 0.6 mi (1.0 km) north of U.S. Highways 20 and 87, 5.8 mi (9.3 km) east of city hall in Casper, and 9.5 mi (15.3 km) downstream from Casper Creek.

DRAINAGE AREA.--12,574 mi² (32,567 km²), of which 831 mi² (2,152 km²) is probably noncontributing.

PERIOD OF RECORD.--Water years 1947-52, 1957-59, 1968 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

REMARKS.--Discharge records furnished by Water and Power Resources Service.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)
OCT											
12...	0845	1480	610	--	13.0	--	7.7	22	330	320	--
24...	0825	1440	650	--	9.5	--	8.3	18	2300	780	210
NOV											
08...	0840	1010	715	--	6.0	--	10.4	14	3000	770	--
JAN											
15...	0910	900	750	8.6	.5	15	10.6	--	--	2900	230
FEB											
06...	1225	950	--	--	2.0	--	--	--	--	--	180
28...	0815	920	750	9.2	4.0	45	--	--	--	780	240
MAR											
31...	0820	950	635	--	2.5	10	11.0	--	--	670	240
MAY											
01...	0815	2000	570	--	8.0	20	9.7	--	--	200	190
JUN											
26...	1100	2740	575	--	16.0	9	9.2	--	--	56	210
JUL											
21...	1315	2200	600	8.5	19.0	15	10.2	--	--	33	400
AUG											
20...	1230	2600	625	8.7	16.0	20	8.8	--	--	88	200
SEP											
18...	1325	2490	693	8.5	16.5	--	8.3	--	--	14	210

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT											
12...	--	--	--	--	--	--	--	--	120	--	--
24...	88	55	18	39	1.2	3.0	150	0	120	170	6.9
NOV											
08...	--	--	--	--	--	--	--	--	--	--	--
JAN											
15...	99	56	21	48	1.4	3.5	160	0	130	170	11
FEB											
06...	57	46	16	30	1.0	2.8	150	0	120	110	9.4
28...	100	64	20	63	1.8	4.0	170	0	140	220	12
MAR											
31...	110	64	21	51	1.4	3.5	160	0	130	200	12
MAY											
01...	67	49	16	37	1.2	4.1	150	0	120	130	8.1
JUN											
26...	95	49	21	29	.9	3.6	140	0	120	130	8.7
JUL											
21...	290	49	18	41	1.3	2.8	140	0	120	130	9.1
AUG											
20...	61	50	19	36	1.1	3.1	170	0	140	130	7.4
SEP											
18...	82	56	17	35	1.1	2.1	150	3	130	150	11

06645000 NORTH PLATTE RIVER BELOW CASPER, WY

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
OCT										
12...	--	--	385	--	.52	1540	20	.40	--	.050
24...	.3	10	379	377	.51	1470	50	.32	1.0	.010
NOV										
08...	--	--	427	--	.58	1160	20	.50	--	.070
JAN										
15...	.4	12	--	401	.55	974	--	--	.76	--
FEB										
06...	.4	16	--	305	.41	782	--	--	.07	--
28...	.5	10	--	476	.65	1180	--	--	.74	--
MAR										
31...	.5	7.7	--	439	.60	1130	--	--	.36	--
MAY										
01...	.4	9.4	--	329	.45	1780	--	--	.18	--
JUN										
26...	.5	9.9	--	320	.44	2370	--	--	.13	--
JUL										
21...	.4	7.6	--	330	.45	1960	--	--	.05	--
AUG										
20...	.4	9.6	--	338	.46	2370	--	--	.24	--
SEP										
18...	.4	6.9	--	350	.48	2350	--	--	.25	--

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
OCT										
12...	.06	.86	.91	1.3	5.8	.050	.15	12	--	--
24...	.01	1.2	1.2	1.5	6.7	.070	.21	--	--	--
NOV										
08...	.08	.69	.76	1.3	5.6	.060	.18	18	--	--
JAN										
15...	--	--	--	--	--	.050	--	--	--	--
FEB										
06...	--	--	--	--	--	.020	--	--	--	--
28...	--	--	--	--	--	.160	--	--	--	--
MAR										
31...	--	--	--	--	--	.080	--	--	.00	2
MAY										
01...	--	--	--	--	--	.090	--	--	--	5
JUN										
26...	--	--	--	--	--	.040	--	--	--	2
JUL										
21...	--	--	--	--	--	.060	--	--	.00	2
AUG										
20...	--	--	--	--	--	.100	--	--	--	3
SEP										
18...	--	--	--	--	--	.140	--	--	--	10

06645150 SMITH CREEK ABOVE OTTER CREEK, NEAR CASPER, WY

LOCATION.--Lat 42°39'00", long 106°10'44", in SW¼SE¼SW¼ sec.15, T.31 N., R.78 W., Natrona County, Hydrologic Unit 10180007, on right bank 1.2 mi (1.9 km) upstream from Otter Creek and 16 mi (26 km) southeast of Casper.

DRAINAGE AREA.--9.91 mi^2 (25.7 km^2).

PERIOD OF RECORD.--October 1974 to December 1979 (discontinued).

REVISED RECORDS.--WDR WY-79-1: 1976(M).

GAGE.--Water-stage recorder. Altitude of gage is 6,550 ft (1,996 m), from topographic map. Prior to Oct. 1, 1976, at site 200 ft (61 m) downstream at datum 7.22 ft (2.201 m) lower.

REMARKS.--Records good for October and December, but are poor for periods of ice affect in November. No diversion above station.

AVERAGE DISCHARGE.--5 years, 3.13 ft^3/s (0.089 m^3/s), 2,270 acre-ft/yr (2.80 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41 ft^3/s (1.16 m^3/s) May 20, 1978, gage height, 1.98 ft (0.604 m); maximum gage height, 4.03 ft (1.228 m) May 7, 1975 (backwater from snow), site and datum then in use; minimum daily discharge, 0.35 ft^3/s (0.010 m^3/s) Mar. 3, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown, occurred after gage discontinued; minimum daily during period of operation, 0.54 ft^3/s (0.015 m^3/s) Nov. 21.

CORRECTIONS.--The maximum gage height during period of record is 4.03 ft (1.228 m) May 7, 1975 (backwater from snow), site and datum then in use; the previously published figure in the report for 1979 is incorrect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	1.2	1.7									
2	1.5	1.3	1.8									
3	1.5	1.7	1.9									
4	1.5	1.8	1.9									
5	1.5	1.7	1.9									
6	1.5	1.8	1.9									
7	1.5	1.8	1.9									
8	1.5	1.8	1.8									
9	1.7	1.8	1.8									
10	1.5	1.8	1.8									
11	1.5	1.8	1.8									
12	1.5	1.7	1.7									
13	1.5	1.8	1.8									
14	1.5	1.8	1.8									
15	1.5	1.8	1.8									
16	2.0	1.8	1.8									
17	1.6	1.8	1.8									
18	1.8	1.9	1.8									
19	1.6	1.8	1.8									
20	1.8	.63	1.8									
21	1.6	.54	1.8									
22	1.6	1.0	1.8									
23	1.6	1.4	1.8									
24	1.6	1.7	1.7									
25	1.5	1.9	1.8									
26	1.5	1.7	1.7									
27	1.5	1.5	1.6									
28	1.5	1.4	1.6									
29	1.4	1.5	1.7									
30	1.1	1.6	1.6									
31	1.0	---	1.6									
TOTAL	47.4	47.77	55.0									
MEAN	1.53	1.59	1.77									
MAX	2.0	1.9	1.9									
MIN	1.0	.54	1.6									
AC-FT	94	95	109									

CAL YR 1979 TOTAL 759.57 MEAN 2.08 MAX 4.8 MIN .54 AC-FT 1510

06645160 SMITH CREEK AT OTTER CREEK, NEAR CASPER, WY

LOCATION.--Lat 42°39'24", long 106°09'40", in NE¼NW¼SW¼ sec.14, T.31 N., R.78 W., Natrona County, Hydrologic Unit 10180007, on right bank 0.2 mi (0.3 km) upstream from Otter Creek and 16 mi (26 km) southeast of Casper.

DRAINAGE AREA.--10.9 mi^2 (28.2 km^2).

PERIOD OF RECORD.--October 1974 to December 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,360 ft (1,939 m), from topographic map. Prior to Mar. 31, 1976, at site 80 ft (24 m) downstream at same datum.

REMARKS.--Records good for October and December, but are poor for November. No diversion above station.

AVERAGE DISCHARGE.--5 years, 2.63 ft^3/s (0.074 m^3/s), 1,910 acre-ft/yr (2.36 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41 ft^3/s (1.16 m^3/s) May 20, 1978, gage height, 3.24 ft (0.988 m); minimum daily, 0.05 ft^3/s (0.001 m^3/s) Oct. 30, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown, occurred after gage was discontinued; minimum daily during period of operation, 0.05 ft^3/s (0.001 m^3/s) Oct. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.55	.55	.81									
2	.56	.63	.89									
3	.60	.94	.93									
4	.62	.99	.97									
5	.62	.91	.97									
6	.62	.90	.93									
7	.59	.90	.89									
8	.62	.90	.89									
9	.72	.89	.89									
10	.65	.86	.89									
11	.60	.80	.85									
12	.61	.73	.82									
13	.66	.75	.89									
14	.63	.80	.89									
15	.61	.82	.89									
16	.97	.82	.89									
17	.78	.86	.86									
18	.83	.89	.89									
19	.75	.83	.86									
20	.91	.25	.86									
21	.84	.07	.86									
22	.81	.09	.86									
23	.78	.20	.86									
24	.79	.60	.82									
25	.75	1.0	.89									
26	.71	.77	.82									
27	.72	.69	.82									
28	.72	.70	.82									
29	.65	.73	.82									
30	.05	.77	.82									
31	.40	---	.82									
TOTAL	20.72	21.64	26.97									
MEAN	.67	.72	.87									
MAX	.97	1.0	.97									
MIN	.05	.07	.81									
AC-FT	41	43	53									

CAL YR 1979 TOTAL 448.87 MEAN 1.23 MAX 3.8 MIN .05 AC-FT 890

06646600 DEER CREEK BELOW MILLAR WASTEWAY, AT GLENROCK, WY

LOCATION.--Lat 42°51'50", long 105°51'56", in NW¼NW¼ sec.4, T.33 N., R.75 W., Converse County, Hydrologic Unit 10180007, on right bank in Glenrock, 900 ft (274 m) downstream from bridge on U.S. Highways 20 and 87, and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--213 mi^2 (552 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1961 to current year.

REVISED RECORDS.--WSP 2118: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,980 ft (1,518 m), from topographic map.

REMARKS.--Records fair except those during winter period, which are poor. One small reservoir above station, capacity, about 60 acre-ft (0.074 hm^3) for irrigation. Diversions above station for irrigation of about 3,700 acres (15.0 km^2), of which about 400 acres (1.62 km^2) are below station. Water is diverted at times to Millar ditch 0.3 mi (0.5 km) upstream and bypasses station.

AVERAGE DISCHARGE.--19 years, 72.5 ft^3/s (2.053 m^3/s), 52,530 acre-ft/yr (64.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft^3/s (402 m^3/s) June 12, 1970, gage height, 9.45 ft (2.880 m); no flow at times in 1961-63, 1965, 1977, 1978, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 450 ft^3/s (12.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 24	0130	*1,360	38.5	6.37	1.942

No flow July 12 to Aug. 14, Aug. 16 to Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	14	19	20	22	20	22	476	78	2.9	.00	.00
2	6.3	14	21	20	23	22	21	386	69	6.3	.00	.00
3	6.3	14	22	20	24	20	22	374	54	2.9	.00	.00
4	5.6	14	24	20	24	18	21	370	39	.75	.00	.00
5	5.6	15	21	20	23	18	22	324	33	.10	.00	.00
6	5.6	15	21	18	24	18	24	309	35	.10	.00	.00
7	5.0	16	21	16	23	18	28	264	33	.02	.00	.00
8	4.4	20	20	16	21	19	25	247	29	.01	.00	.00
9	5.6	20	19	18	22	19	28	291	21	.01	.00	.00
10	5.6	20	19	19	23	22	28	291	15	.02	.00	.00
11	6.3	19	17	19	23	21	26	354	9.3	.01	.00	.00
12	7.0	20	18	20	22	21	22	390	8.5	.00	.00	.00
13	6.3	20	19	24	22	19	22	317	6.1	.00	.00	.00
14	3.9	20	21	23	21	25	24	354	2.5	.00	.00	.00
15	3.4	20	20	22	21	25	25	324	2.9	.00	.11	.00
16	6.3	20	18	22	21	26	33	284	2.9	.00	.00	.00
17	7.0	19	19	20	22	22	38	261	3.4	.00	.00	.00
18	5.0	19	20	19	78	20	50	225	3.4	.00	.00	.00
19	4.4	19	20	18	67	25	95	213	4.4	.00	.00	.00
20	7.0	19	18	18	38	24	210	192	3.9	.00	.00	.00
21	14	18	20	19	28	21	375	162	4.4	.00	.00	.00
22	14	19	16	20	25	20	594	168	5.0	.00	.00	.00
23	16	20	17	21	25	20	860	162	4.4	.00	.00	.00
24	15	21	18	23	24	22	890	149	4.4	.00	.00	.00
25	16	21	19	22	22	22	681	144	6.3	.00	.00	.00
26	14	19	16	19	21	22	513	128	5.6	.00	.00	.06
27	14	18	18	18	21	20	411	105	5.6	.00	.00	.57
28	14	18	17	18	22	22	403	91	5.6	.00	.00	2.0
29	15	18	18	19	24	21	454	80	2.5	.00	.00	2.1
30	15	19	19	21	---	22	508	80	2.5	.00	.00	2.2
31	15	---	20	21	---	22	---	78	---	.00	.00	---
TOTAL	273.0	548	595	613	776	656	6475	7593	499.6	13.12	.11	6.93
MEAN	8.81	18.3	19.2	19.8	26.8	21.2	216	245	16.7	.42	.004	.23
MAX	16	21	24	24	78	26	890	476	78	6.3	.11	2.2
MIN	3.4	14	16	16	21	18	21	78	2.5	.00	.00	.00
AC-FT	541	1090	1180	1220	1540	1300	12840	15060	991	26	.2	14

CAL YR 1979 TOTAL 9742.24 MEAN 26.7 MAX 318 MIN .04 AC-FT 19320
WTR YR 1980 TOTAL 18048.76 MEAN 49.3 MAX 890 MIN .00 AC-FT 35800

06646600 DEER CREEK BELOW MILLAR WASTEWAY, AT GLENROCK, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

REMARKS.--No flow was observed July 27, Aug. 24, Sept. 8.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)
OCT 24...	1745	17	12.0	530	270	110	61	53	1.0	2.5	320
NOV 30...	1430	20	.0	460	200	110	47	46	.9	2.3	320
DEC 21...	1430	21	--	380	150	84	42	46	1.0	2.0	280
JAN 16...	1350	23	2.0	350	130	84	34	40	.9	1.6	250
MAR 18...	1545	14	8.0	360	140	84	37	40	.9	1.0	270
APR 10...	1845	30	8.0	320	120	49	47	30	.7	1.5	240
21...	1030	352	6.5	78	7	19	7.2	8.0	.4	1.9	86
MAY 23...	1620	162	20.0	170	47	37	19	18	.6	1.8	150
JUL 06...	1320	.10	28.0	440	22	90	51	190	4.0	3.0	510

DATE	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 24...	0	260	360	6.9	.5	14	768	1.04	35.3	.10	.040
NOV 30...	0	260	280	7.8	.5	12	666	.91	36.0	.00	.000
DEC 21...	0	230	260	3.9	.4	11	587	.80	33.3	.00	.040
JAN 16...	12	220	200	4.6	.4	12	511	.70	31.7	.03	.070
MAR 18...	0	220	220	11	.5	9.3	533	.72	20.1	.04	.020
APR 10...	0	200	180	3.6	.5	12	440	.60	35.6	.06	.010
21...	0	71	26	.9	.4	.0	110	.15	105	.67	.310
MAY 23...	0	120	86	2.2	.4	14	250	.34	111	.01	.030
JUL 06...	0	420	320	92	1.4	19	1100	1.50	.50	.39	.010

06646780 SAND CREEK NEAR GLENROCK, WY

LOCATION.--Lat 42°51'27", long 105°46'01", in SE¼NW¼SW¼ sec.5, T.33 N., R.74 W., Converse County, Hydrologic Unit 10180007, on right bank 2.2 mi (3.5 km) upstream from mouth and 5.4 mi (8.7 km) east of Glenrock.

DRAINAGE AREA.--79.9 mi^2 (206.9 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,000 ft (1,524 m), from topographic map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 546 ft^3/s (15.5 m^3/s) Aug. 17, 1979, gage height, 4.20 ft (1.280 m), from rating curve extended above 13 ft^3/s (0.37 m^3/s) on basis of slope-area measurement of peak flow; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 162 ft^3/s (4.59 m^3/s) Feb. 18, gage height, 3.82 ft (1.164 m), backwater from ice; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.01	.00	.01	.00	.12	.03	.00	.00	.00	.00	.00
2	.00	.02	.00	.01	.00	.20	.02	.01	.00	.00	.00	.00
3	.00	.02	.07	.01	.06	.18	.02	.01	.00	.00	.00	.00
4	.00	.01	.13	.01	.06	.10	.03	.03	.00	.00	.00	.00
5	.00	.02	.11	.01	.03	.12	.02	.03	.00	.00	.00	.00
6	.00	.02	.09	.00	.04	.14	.02	.01	.00	.00	.00	.00
7	.00	.02	.08	.00	.00	.17	.01	.01	.00	.00	.00	.00
8	.00	.02	.09	.00	.00	.18	.01	.01	.00	.00	.00	.00
9	.00	.02	.07	.00	.00	.20	.01	.02	.00	.00	.00	.00
10	.00	.02	.02	.00	.00	.27	.01	.05	.00	.00	.00	.00
11	.00	.02	.01	.00	.01	.18	.02	.20	.00	.00	.00	.00
12	.00	.02	.00	.02	.01	.10	.01	.44	.00	.00	.00	.00
13	.00	.02	.03	.08	.01	.04	.01	.07	.00	.00	.00	.00
14	.00	.02	.04	.06	.00	.06	.01	.04	.00	.00	.00	.00
15	.00	.02	.03	.03	.00	.05	.02	.03	.00	.00	.00	.00
16	.00	.03	.00	.02	.00	.04	.02	.02	.00	.00	.00	.00
17	.00	.02	.03	.01	.00	.02	.02	.00	.00	.00	.00	.00
18	.01	.01	.03	.00	50	.04	.01	.00	.00	.00	.00	.00
19	.00	.01	.02	.00	60	.05	.01	.00	.00	.00	.00	.00
20	.01	.00	.02	.00	17	.03	.01	.01	.00	.00	.00	.00
21	.00	.00	.02	.00	5.7	.03	.01	.00	.00	.00	.00	.00
22	.00	.02	.02	.00	.44	.03	.01	.00	.00	.00	.00	.00
23	.00	.03	.01	.00	.41	.04	.02	.00	.00	.00	.00	.00
24	.00	.01	.01	.00	.37	.04	.02	.00	.00	.00	.00	.00
25	.00	.02	.01	.00	.32	.04	.01	.00	.00	.00	.00	.00
26	.00	.02	.01	.00	.36	.04	.00	.00	.00	.00	.00	.00
27	.00	.00	.01	.00	.30	.04	.01	.00	.00	.00	.00	.00
28	.01	.00	.01	.00	.30	.04	.01	.00	.00	.00	.00	.00
29	.03	.00	.01	.00	.23	.04	.01	.00	.00	.00	.00	.00
30	.02	.00	.01	.00	---	.04	.00	.01	.00	.00	.29	.00
31	.02	---	.01	.00	---	.05	---	.00	---	.00	.00	---
TOTAL	.10	.45	1.00	.27	135.65	2.72	.42	1.00	.00	.00	.29	.00
MEAN	.003	.015	.032	.009	4.68	.088	.014	.032	.000	.000	.009	.000
MAX	.03	.03	.13	.08	60	.27	.03	.44	.00	.00	.29	.00
MIN	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00
AC-FT	.2	.9	2.0	.5	269	5.4	.8	2.0	.00	.00	.6	.00

CAL YR 1979 TOTAL 176.37 MEAN .48 MAX 71 MIN .00 AC-FT 350
WTR YR 1980 TOTAL 141.90 MEAN .39 MAX 60 MIN .00 AC-FT 281

06646780 SAND CREEK NEAR GLENROCK, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1977 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
DEC 19...	1320	.02	2100	7.7	.5	11.0	--	--	570	130
FEB 20...	1100	9.7	--	--	3.0	--	--	--	--	--
MAY 13...	1530	E.03	2970	--	20.0	7.3	140	380	860	190

E-Estimate.

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
DEC 19...	60	190	3.5	6.5	670	27	.4	8.1	1350
FEB 20...	--	--	--	--	--	--	--	--	--
MAY 13...	92	270	4.4	11	1100	34	.7	13	2000

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
DEC 19...	1090	1.48	.06	.02	--	.020	.02	.24	.26
FEB 20...	--	--	--	--	--	--	--	--	--
MAY 13...	--	2.72	.16	.02	.03	.030	.04	.31	.34

DATE	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
DEC 19...	.28	1.2	.480	1.5	.010	5.0	.2	--	--
FEB 20...	--	--	--	--	--	--	--	--	--
MAY 13...	.36	1.6	.010	.03	.010	5.2	.3	.00	1

06646780 SAND CREEK NEAR GLENROCK, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)
DEC 19...	1320	--	--	--	--	--	--	--	--	--	140
MAY 13...	1530	80	3	1	2	100	30	70	0	<3	140

DATE	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
DEC 19...	--	--	--	--	--	--	--	--	--	20	--
MAY 13...	0	<3	0	0	0	0	<8	1	<25	25	2

DATE	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LITHIUM SUSPENDED RECOVERABLE (UG/L AS LI)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)
DEC 19...	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	<25	60	0	72	550	0	570	.2	.2	.0	2

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
DEC 19...	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	<25	4	0	4	0	0	0	2200	<8.0	60	<8

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
MAY 13...	1530	85	<.4	31	1.6	29	1.6	58	<.3

06646780 SAND CREEK NEAR GLENROCK, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM
DEC											
19...	1320	.5	.02	44	.00	--	--	--	--	--	--
FEB											
20...	1100	3.0	9.7	6510	170	79	91	94	96	100	--
MAY											
13...	1530	20.0	E.03	49	.00	--	--	--	--	--	2

E-Estimate.

DATE	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
DEC										
19...	--	--	--	--	--	--	--	--	--	--
FEB										
20...	--	--	--	--	--	--	--	--	--	--
MAY										
13...	5	28	39	65	70	75	81	88	96	100

06646800 NORTH PLATTE RIVER NEAR GLENROCK, WY

LOCATION.--Lat 42°50'10", long 105°45'30", in NW¼NE¼ sec.17, T.33 N., R.74 W., Converse County, Hydrologic Unit 10180007, on left bank 0.8 mi (1.3 km) downstream from Sand Creek, 1.0 mi (1.6 km) downstream from Dave Johnston powerplant, and 5.8 mi (9.3 km) east of Glenrock city limits.

DRAINAGE AREA.--13,538 mi^2 (35,063 km^2), of which 1,173 mi^2 (3,038 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,920 ft (1,500 m), from topographic map. Prior to Oct. 1, 1965, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for Nov. 28 to Jan. 7, which are poor. Flow regulated by Seminoe, Pathfinder, and Alcova Reservoirs. (See sta 06635500, 06640500, 06641500.) Slight regulation 1.0 mi (1.6 km) upstream by storage pond for Dave Johnston powerplant, capacity, 755 acre-ft (0.931 hm^3). Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft^3/s (453 m^3/s) May 14, 1965, gage height, 7.10 ft (2.164 m), present datum; minimum daily, 176 ft^3/s (4.98 m^3/s) Dec. 11, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,260 ft^3/s (121 m^3/s) Apr. 24, gage height, 4.04 ft (1.231 m); minimum daily, 498 ft^3/s (14.1 m^3/s) Jan. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1380	1430	750	936	840	1150	1000	2620	2680	2770	2400	2460
2	1390	1400	830	1070	952	1120	1010	2670	2870	2880	2400	2430
3	1400	1200	1190	910	1040	1110	1020	2830	2740	2670	2410	2410
4	1380	1060	1260	942	1110	1130	998	2900	2550	2440	2360	2410
5	1400	1040	1150	1000	1090	1020	1000	2830	2550	2410	2400	2380
6	1400	1040	1060	1000	1100	1110	1050	2620	2560	2400	2360	2430
7	1400	1020	1060	700	1130	1070	1080	2360	2550	2360	2360	2460
8	1400	1020	1070	573	1100	1070	1080	2120	2530	2170	2380	2500
9	1400	1020	1040	647	1040	1050	1040	1980	2530	2150	2440	2480
10	1410	1020	1020	787	1020	1040	700	2030	2530	2150	2410	2460
11	1420	1020	1030	1060	1070	1060	630	2280	2530	2170	2460	2480
12	1420	1000	867	825	1090	1060	614	2360	2500	2200	2440	2500
13	1420	1000	810	1020	1080	1070	597	2560	2510	2260	2460	2460
14	1420	1000	810	1330	1080	1050	597	2830	2530	2260	2480	2500
15	1420	1000	1030	1310	942	1050	942	2840	2530	2260	2500	2510
16	1460	1000	870	1400	882	1120	1120	2720	2550	2260	2410	2480
17	1540	994	800	1260	942	1120	1440	2650	2550	2250	2410	2480
18	1440	1000	1100	1310	1170	1060	1480	2600	2530	2250	2400	2500
19	1420	1020	1050	973	1470	1040	1660	2550	2500	2250	2430	2490
20	1440	1060	1110	724	1510	1040	2060	2510	2670	2250	2510	2480
21	1440	1020	1140	760	1780	1040	2500	2430	2700	2260	2510	2430
22	1430	942	1090	892	1680	1020	3050	2380	2670	2260	2650	2310
23	1430	973	1070	806	1480	1020	3380	2340	2680	2230	2880	2200
24	1420	1050	1020	844	1360	1020	3660	2330	2650	2380	2920	2170
25	1420	1040	1000	952	1340	1000	3440	2310	2700	2600	2720	2140
26	1400	1000	1020	751	1280	1000	3080	2260	2670	2620	2480	2120
27	1400	963	983	527	1340	994	2650	2250	2670	2560	2410	2060
28	1400	910	870	498	1410	1000	2530	2200	2760	2480	2400	2080
29	1430	770	810	581	1200	1000	2550	2340	2740	2440	2360	2060
30	1470	670	800	715	---	1000	2600	2620	2790	2460	2360	1980
31	1410	---	830	770	---	1000	---	2600	---	2440	2430	---
TOTAL	44010	30682	30540	27873	34528	32634	50558	76920	78520	73540	76540	70850
MEAN	1420	1023	985	899	1191	1053	1685	2481	2617	2372	2469	2362
MAX	1540	1430	1260	1400	1780	1150	3660	2900	2870	2880	2920	2510
MIN	1380	670	750	498	840	994	597	1980	2500	2150	2360	1980
AC-FT	87290	60860	60580	55290	68490	64730	100300	152600	155700	145900	151800	140500

CAL YR 1979 TOTAL 521128 MEAN 1428 MAX 3970 MIN 670 AC-FT 1034000
WTR YR 1980 TOTAL 627195 MEAN 1714 MAX 3660 MIN 498 AC-FT 1244000

06646800 NORTH PLATTE RIVER NEAR GLENROCK, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)
OCT											
24...	1530	1460	19.5	230	99	62	19	41	1.2	3.3	160
NOV											
30...	1245	689	10.0	250	110	67	21	52	1.4	3.8	150
DEC											
21...	1330	1120	--	270	140	75	19	55	1.5	3.3	160
JAN											
16...	1250	1410	10.0	290	160	66	30	49	1.3	3.0	160
MAR											
18...	1430	1050	12.0	270	110	72	21	61	1.6	3.3	200
APR											
10...	1630	638	18.5	270	120	46	37	70	1.9	3.5	180
21...	1315	2600	18.5	190	59	50	16	40	1.3	3.3	160
MAY											
31...	1235	2620	17.0	200	77	47	19	42	1.3	2.8	150
JUN											
29...	1640	2740	19.5	180	65	44	18	35	1.1	2.8	140
JUL											
27...	1505	2530	21.0	210	87	52	20	32	1.0	2.8	150
AUG											
24...	1430	2950	21.0	200	88	49	18	35	1.1	3.0	130
SEP											
21...	1530	2450	16.5	210	87	61	14	46	1.4	2.2	150

DATE	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT											
24...	0	130	180	12	.4	11	406	.55	1600	.60	.180
NOV											
30...	9	140	190	16	.6	9.2	456	.62	848	.30	.050
DEC											
21...	0	130	230	14	.5	9.3	487	.66	1470	.39	.030
JAN											
16...	0	130	230	13	.4	10	480	.65	1830	.73	.130
MAR											
18...	0	160	200	17	.5	9.3	483	.66	1370	.57	.400
APR											
10...	0	150	240	16	.6	7.3	510	.69	879	1.0	.070
21...	0	130	140	9.9	.5	1.5	340	.46	2390	.94	.390
MAY											
31...	0	120	150	8.0	.5	10	350	.48	2480	.15	.100
JUN											
29...	0	120	130	8.6	.6	11	320	.44	2370	.09	.040
JUL											
27...	0	120	140	9.2	.4	9.1	340	.46	2320	1.0	.040
AUG											
24...	3	110	140	8.6	.5	16	340	.46	2710	.33	.160
SEP											
21...	0	120	170	11	.6	9.9	390	.53	2580	.22	.130

06647500 BOX ELDER CREEK AT BOXELDER, WY

LOCATION.--Lat 42°36'44", long 105°51'29", in NE¼NE¼SW¼ sec.32, T.31 N., R.75 W., Converse County, Hydrologic Unit 10180007, on left bank at Hiser Ranch (old Boxelder Post Office), 0.8 mi (1.3 km) downstream from Snowshoe Creek, and 17 mi (27 km) south of Glenrock.

DRAINAGE AREA.--63.0 mi^2 (163.2 km^2).

PERIOD OF RECORD.--April 1946 to September 1951, October 1961 to September 1967, October 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,710 ft (2,045 m), from topographic map. Prior to June 7, 1946, nonrecording gage, and June 8, 1946, to July 21, 1976, water-stage recorder at site 400 ft (122 m) downstream at different datum.

REMARKS.--Records good except those for winter period and periods of variable backwater from beaver clippings July 7-28, Aug. 29 to Sept. 29, which are poor. Diversions above station for irrigation of about 60 acres (24 hm^2), of which about 40 acres (16 hm^2) are below station.

AVERAGE DISCHARGE.--20 years, 37.8 ft^3/s (1.070 m^3/s), 27,390 acre-ft/yr (33.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,530 ft^3/s (128 m^3/s) May 14, 1965, gage height, 8.58 ft (2.615 m), site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft^3/s (7.08 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 23	1830	*552	15.6	4.26	1.298
May 10	2130	385	10.9	3.82	1.164

Minimum daily discharge, 0.04 ft^3/s (0.001 m^3/s) Aug. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	2.1	2.1	3.3	3.1	3.2	5.3	311	74	3.4	.15	.18
2	.07	2.3	2.2	3.2	3.1	3.5	5.3	299	63	4.5	.13	.13
3	.10	2.5	2.5	3.1	3.3	3.3	5.3	322	55	5.2	.10	.08
4	.11	2.6	2.8	3.1	3.1	3.1	5.3	308	47	3.7	.06	.11
5	.11	2.5	2.7	3.2	3.0	3.2	6.3	296	42	3.2	.05	.11
6	.11	2.4	2.9	2.9	3.1	3.2	7.8	294	39	2.4	.04	.06
7	.11	2.3	2.8	2.8	3.0	3.2	7.7	285	35	2.1	.04	.07
8	.13	2.3	3.0	2.7	2.9	3.4	7.4	291	33	2.0	.05	.07
9	.18	2.2	3.3	2.8	2.9	3.5	7.6	340	30	1.7	.07	.08
10	.20	2.2	3.2	2.9	3.0	3.7	7.9	343	27	1.5	.07	.07
11	.18	2.2	2.8	3.0	3.0	3.9	7.7	334	24	1.2	.06	.08
12	.18	2.2	2.8	3.2	3.0	3.8	7.2	308	21	1.1	.06	.11
13	.18	2.2	2.8	3.4	2.9	3.9	7.4	285	19	1.4	.07	.10
14	.20	2.3	2.9	3.6	2.8	4.2	9.0	274	17	1.3	.07	.08
15	.24	2.4	2.9	3.6	2.7	4.8	12	254	15	.58	.15	.06
16	.87	2.4	2.8	3.5	2.8	5.0	19	236	14	.47	.18	.06
17	1.0	2.5	2.9	3.5	2.9	4.7	28	218	14	.36	.15	.06
18	.72	2.6	3.1	3.4	3.1	4.8	42	200	13	.41	.10	.07
19	.58	2.3	3.3	3.3	3.3	4.8	114	194	12	.24	.07	.05
20	1.1	2.0	3.4	3.2	3.3	4.8	194	190	12	.24	.07	.05
21	1.6	1.8	3.4	3.2	3.3	4.8	249	194	11	.32	.06	.06
22	1.4	1.7	3.3	3.2	3.2	4.8	242	211	9.3	.28	.06	.06
23	1.2	1.8	3.2	3.2	3.1	5.0	378	225	7.5	.52	.06	.08
24	1.1	2.0	3.3	3.3	3.0	5.0	391	213	6.3	.20	.08	.10
25	1.0	2.1	3.4	3.2	3.1	4.8	330	207	5.7	.15	.08	.08
26	.93	2.0	3.3	3.0	3.2	5.0	277	162	5.2	.36	.08	.08
27	1.0	2.0	3.2	2.9	3.5	5.0	244	137	4.4	.32	.08	.08
28	1.2	1.9	3.1	2.8	3.7	5.0	236	117	3.8	.38	.07	.06
29	1.6	1.9	3.1	2.8	3.4	5.2	269	102	3.6	.28	.06	.07
30	2.3	2.0	3.1	2.9	---	5.3	311	92	3.4	.20	.05	.07
31	2.1	---	3.2	2.9	---	5.3	---	80	---	.18	.06	---
TOTAL	21.86	65.7	92.8	97.1	89.8	133.2	3433.2	7322	666.2	40.19	2.48	2.42
MEAN	.71	2.19	2.99	3.13	3.10	4.30	114	236	22.2	1.30	.080	.081
MAX	2.3	2.6	3.4	3.6	3.7	5.3	391	343	74	5.2	.18	.18
MIN	.06	1.7	2.1	2.7	2.7	3.1	5.3	80	3.4	.15	.04	.05
AC-FT	43	130	184	193	178	264	6810	14520	1320	80	4.9	4.8

CAL YR 1979 TOTAL 6978.15 MEAN 19.1 MAX 185 MIN .03 AC-FT 13840
WTR YR 1980 TOTAL 11966.95 MEAN 32.7 MAX 391 MIN .04 AC-FT 23740

06647890 LITTLE BOX ELDER CREEK NEAR CAREYHURST, WY

LOCATION.--Lat 42°45'04", long 105°44'25", in SE¼SW¼SE¼ sec.8, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, on right bank 4.6 mi (7.4 km) southwest of Barber Ranch and 7.6 mi (12.2 km) southwest of Careyhurst. Prior to Sept. 25, 1980, at site 170 ft (51.8 m) downstream.

DRAINAGE AREA.--7.18 mi² (18.6 km²).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder and bedrock control. Altitude of gage is 5,670 ft (1,728 m), from topographic map. Prior to Sept. 25, 1980, at site 170 ft (51.8 m) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. No gage-height record Jan. 9-12, Jan. 27 to Feb. 29. No diversion above station.

AVERAGE DISCHARGE.--6 years, 1.43 ft³/s (0.040 m³/s), 1,040 acre-ft/yr (1.28 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 83 ft³/s (2.35 m³/s) May 11, 1978, gage height, 2.04 ft (0.622 m), site and datum then in use; minimum daily, 0.32 ft³/s (0.009 m³/s) Nov. 21, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 8.0 ft³/s (0.23 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 21	1730	*30	0.85	a1.47	0.448
Apr. 30	1900	18	.51	a1.18	.360

a-Site and datum then in use.

Minimum daily discharge, 0.32 ft³/s (0.009 m³/s) Nov. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.59	.47	.43	.72	.76	1.4	1.5	9.1	2.1	.87	.56	.56
2	.51	.47	.50	.72	.90	1.3	1.5	8.3	2.0	.87	.56	.52
3	.53	.53	.62	.72	1.0	1.4	1.6	7.7	1.9	.84	.55	.51
4	.53	.53	.77	.72	1.0	1.0	1.8	6.9	1.8	.83	.57	.49
5	.53	.53	.70	.73	.95	1.1	2.5	6.8	1.8	.80	.56	.46
6	.47	.53	.66	.62	.98	1.2	3.0	6.4	1.7	.77	.54	.46
7	.47	.53	.60	.62	.90	1.1	2.7	6.4	1.6	.76	.55	.46
8	.53	.47	.62	.66	.83	1.1	2.5	6.2	1.6	.77	.58	.47
9	.59	.47	.69	.74	.83	1.1	2.7	6.9	1.5	.74	.59	.50
10	.59	.47	.65	.87	.87	1.1	3.0	6.3	1.4	.73	.56	.50
11	.47	.46	.48	.77	.86	1.2	2.7	5.4	1.3	.73	.56	.50
12	.47	.46	.43	.88	.86	1.4	2.5	5.1	1.3	.75	.56	.52
13	.47	.47	.47	1.0	.84	1.3	2.5	6.1	1.2	.75	.56	.59
14	.47	.48	.55	1.3	.80	1.4	3.5	6.0	1.2	.66	.56	.51
15	.42	.47	.56	1.1	.72	2.1	5.9	5.7	1.1	.65	.62	.50
16	.72	.47	.50	.95	.75	2.0	6.4	6.3	1.1	.63	.59	.53
17	.47	.47	.62	.88	.81	1.8	8.2	5.3	1.1	.62	.51	.51
18	.47	.53	.68	.77	.95	1.7	9.7	4.9	1.1	.62	.48	.51
19	.59	.48	.72	.66	1.1	1.6	9.7	4.8	1.1	.61	.51	.50
20	.59	.40	.72	.72	1.2	1.5	15	4.6	1.0	.63	.51	.51
21	.59	.32	.72	.76	1.1	1.6	19	4.4	1.0	.61	.51	.52
22	.59	.35	.72	.80	1.0	1.5	19	4.2	.99	.59	.51	.52
23	.53	.38	.72	.80	1.0	1.5	19	4.0	.96	.61	.52	.53
24	.53	.40	.72	.80	1.0	1.5	15	3.7	.96	.62	.51	.53
25	.47	.44	.72	.68	1.1	1.5	12	3.2	.94	.63	.51	.53
26	.53	.43	.72	.62	1.3	1.4	9.5	2.7	.92	.63	.53	.53
27	.53	.41	.72	.57	1.7	1.4	8.7	2.6	.90	.61	.51	.53
28	.53	.40	.66	.54	2.0	1.5	9.7	2.5	.89	.60	.51	.53
29	.59	.39	.62	.55	1.8	1.5	9.7	2.4	.91	.58	.51	.53
30	.54	.40	.64	.58	---	1.6	13	2.5	.88	.59	.52	.53
31	.47	---	.68	.68	---	1.6	---	2.2	---	.56	.54	---
TOTAL	16.38	13.61	19.61	23.53	29.91	44.4	223.5	159.6	38.25	21.26	16.76	15.39
MEAN	.53	.45	.63	.76	1.03	1.43	7.45	5.15	1.28	.69	.54	.51
MAX	.72	.53	.77	1.3	2.0	2.1	19	9.1	2.1	.87	.62	.59
MIN	.42	.32	.43	.54	.72	1.0	1.5	2.2	.88	.56	.48	.46
AC-FT	32	27	39	47	59	88	443	317	76	42	33	31

CAL YR 1979 TOTAL 438.65 MEAN 1.20 MAX 10 MIN .32 AC-FT 870
WTR YR 1980 TOTAL 622.20 MEAN 1.70 MAX 19 MIN .32 AC-FT 1230

06647900 LITTLE BOX ELDER CREEK AT LITTLE BOX ELDER CAVE, NEAR CAREYHURST, WY

LOCATION.--Lat 42°45'38", long 105°43'33", in NE¼SE¼NW¼ sec.9, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, on left bank 0.3 mi (0.5 km) southwest of Little Box Elder Cave, 3.6 mi (5.8 km) southwest of Barber Ranch, and 6.6 mi (10.6 km) southwest of Careyhurst.

DRAINAGE AREA.--8.47 mi² (21.9 km²).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,480 ft (1,670 m), from topograhic map.

REMARKS.--Records good. One small detention reservoir above station.

AVERAGE DISCHARGE.--6 years, 0.36 ft³/s (0.010 m³/s), 261 acre-ft/yr (321,800 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41 ft³/s (1.16 m³/s) May 18, 1978, gage height, 2.07 ft (0.631 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20 ft³/s (0.57 m³/s) Apr. 22, gage height, 1.82 ft (0.555 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	7.4	.15	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	7.4	.06	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	7.4	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	7.0	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	6.4	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	6.2	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	5.9	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	5.4	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	5.1	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	4.9	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	4.7	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	4.2	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	3.7	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	3.7	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	3.7	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	3.5	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.04	3.5	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	1.2	3.3	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	2.4	3.0	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	3.7	2.5	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	5.9	2.3	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	12	1.9	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	14	1.9	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	11	1.4	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	9.1	1.2	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	8.0	.93	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	7.4	.70	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	7.4	.47	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	7.4	.33	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	7.4	.47	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.28	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	96.94	110.78	.21	.00	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	3.23	3.57	.007	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	14	7.4	.15	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.28	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	192	220	.4	.00	.00	.00

CAL YR 1979	TOTAL 67.80	MEAN .19	MAX 4.2	MIN .00	AC-FT 134
WTR YR 1980	TOTAL 207.93	MEAN .57	MAX 14	MIN .00	AC-FT 412

06649000 LA PRELE CREEK NEAR DOUGLAS, WY

LOCATION.--Lat 42°40'52", long 105°37'48", in SW¼NE¼SW¼ sec.5, T.31 N., R.73 W., Converse County, Hydrologic Unit 10180007, on right bank 0.8 mi (1.3 km) upstream from La Prele Reservoir and 13.5 mi (21.7 km) southwest of Douglas.

DRAINAGE AREA.--135 mi² (350 km²).

PERIOD OF RECORD.--August 1919 to current year (no winter records since 1971).

REVISED RECORDS.--WSP 1710: Drainage area. WSP 1918: 1920(M), 1952(M).

GAGE.--Water-stage recorder. Altitude of gage is about 5,600 ft (1,707 m), from nearby line of levels.

REMARKS.--Records good. Several small reservoirs above station, combined capacity, about 140 acre-ft (0.173 hm³) for irrigation. Diversions for irrigation of about 4,600 acres (18.6 km²) above station. Water is imported from La Bonte Creek and Wagon Hound Creek basins into Little La Prele Creek, upstream from the station, for irrigation below La Prele Reservoir.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--52 years (water years 1920-71), 40.4 ft³/s (1.144 m³/s), 29,270 acre-ft/yr (36.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,300 ft³/s (490 m³/s) June 12, 1970, gage height, 13.01 ft (3.965 m), from rating curve extended above 2,700 ft³/s (76.5 m³/s) on basis of slope-area measurement of peak flow; no flow at times in 1936, 1939-40, 1943.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 627 ft³/s (17.8 m³/s) Apr. 20, gage height 9.07 ft (2.765 m) minimum daily during period of operation, 0.15 ft³/s (0.004 m³/s) Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						14	14	257	76	3.0	.45	.27
2						14	14	223	66	3.2	.56	.19
3						14	14	267	46	3.0	.45	.15
4						14	14	258	33	2.9	.45	.19
5						15	14	255	27	2.7	.45	.31
6						14	21	260	24	2.6	.40	.35
7						12	24	228	20	2.7	.35	.27
8						10	22	232	19	2.9	.45	.23
9						9.9	22	267	14	2.6	.45	.31
10						10	24	284	8.7	2.2	.40	.31
11						12	26	348	7.9	2.2	.40	.40
12						11	25	352	6.6	2.0	.35	.40
13						9.9	26	308	5.5	2.3	.35	.40
14						13	28	341	4.5	2.2	.40	.40
15						14	40	323	4.2	2.5	.50	.40
16						16	66	205	4.7	2.2	.50	.40
17						13	66	252	4.7	2.0	.45	.45
18						12	90	221	4.2	1.9	.35	.40
19						14	146	215	4.2	1.9	.50	.31
20						14	276	201	4.4	1.8	.40	.31
21						14	387	187	4.0	1.8	.31	.40
22						14	437	199	3.6	1.6	.31	.40
23						14	488	222	3.5	1.6	.31	.35
24						14	424	218	3.4	1.3	.31	.40
25						14	324	211	3.4	.98	.31	.35
26						14	267	171	3.4	.98	.35	.35
27						14	232	144	3.2	.88	.31	.35
28						15	221	118	3.2	.62	.27	.31
29						14	247	107	3.2	.56	.19	.35
30						14	272	99	3.2	.50	.23	.35
31						15	---	85	---	.50	.27	---
TOTAL						411.8	4271	7058	418.7	60.12	11.78	10.06
MEAN						13.3	142	228	14.0	1.94	.38	.34
MAX						16	488	352	76	3.2	.56	.45
MIN						9.9	14	85	3.2	.50	.19	.15
AC-FT						817	8470	14000	830	119	23	20

06652000 NORTH PLATTE RIVER AT ORIN, WY

LOCATION.--Lat 42°39'02", long 105°09'46", in SE¼SW¼SW¼ sec.17, T.31 N., R.69 W., Converse County, Hydrologic Unit 10180008, on right bank 630 ft (192 m) downstream from bridge on U.S. Highway 87, 0.2 mi (0.3 km) upstream from Shawnee Creek, and 1.5 mi (2.4 km) east of Orin.

DRAINAGE AREA.--14,888 mi^2 (38,560 km^2), of which 1,193 mi^2 (3,090 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January, April to November 1895, April to October 1896, January 1897 to December 1898, April to November 1899, April to September 1917, April to September 1918, May to September 1924, April 1958 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "at Orin Junction" 1895, 1897-99 and as "at McKinley" 1917-18.

REVISED RECORDS.--WSP 1310: 1896, 1899. WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,660 ft (1,420 m), from topographic map. Jan. 1, 1895, to Nov. 30, 1899, and May 1 to Sept. 30, 1924, nonrecording gage at railroad bridge just upstream from U.S. Highway 87 at different datum. Apr. 1, 1917, to Sept. 30, 1918, nonrecording gage at site 2.2 mi (3.5 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Major regulation began after completion of Pathfinder Reservoir in April 1909. Natural flow of stream affected by storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Twenty-six discharge measurements furnished by Water and Power Resources Services.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,800 ft^3/s (674 m^3/s) May 15, 1965, gage height, 10.00 ft (3.048 m); maximum gage height, 10.45 ft (3.185 m) June 12, 1970; minimum daily discharge determined, 170 ft^3/s (4.81 m^3/s) Sept. 11-14, 1899.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown, during ice flow and variable backwater Feb. 19; maximum gage height, 9.43 ft (2.874 m) Feb. 19 (backwater from ice); minimum daily discharge, 410 ft^3/s (11.6 m^3/s) Jan. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1430	1590	670	920	840	1230	1140	3680	2860	2790	2270	2430
2	1440	1610	720	986	950	1150	1140	3540	3010	2810	2220	2380
3	1460	1550	950	1070	1050	1130	1180	3710	3080	2900	2220	2320
4	1470	1350	1300	991	1150	1100	1190	3830	2830	2570	2210	2290
5	1490	1210	1480	1000	1170	1070	1160	3810	2740	2450	2200	2290
6	1520	1170	1270	950	1200	980	1180	3580	2730	2380	2220	2250
7	1500	1170	1190	750	1100	1120	1260	3160	2700	2330	2180	2330
8	1520	1160	1150	570	1020	1090	1320	2930	2690	2170	2180	2390
9	1520	1150	1160	490	1070	1090	1290	2610	2680	2000	2260	2420
10	1540	1140	1130	710	1060	1080	1250	2660	2640	1940	2340	2410
11	1510	1130	1110	880	1040	1050	890	3110	2620	1890	2370	2450
12	1520	1120	1000	1120	1080	1080	808	3710	2610	1870	2380	2490
13	1530	1120	780	1050	1060	1090	770	3670	2560	1940	2350	2530
14	1510	1110	871	1780	790	1100	745	3810	2510	2000	2370	2520
15	1510	1120	846	1580	720	1090	730	3910	2520	2000	2470	2530
16	1500	1120	960	1440	780	1110	1180	3770	2560	1990	2510	2530
17	1580	1100	921	1520	900	1180	1450	3580	2570	1990	2400	2540
18	1650	1070	805	1390	1160	1180	1820	3400	2590	1990	2320	2530
19	1580	1060	1150	1250	5650	1120	2020	3240	2560	2020	2280	2550
20	1560	1120	1110	920	3300	1100	2670	3060	2570	2040	2370	2560
21	1610	1150	1170	610	2590	1100	3420	2880	2660	2100	2460	2520
22	1620	1100	1190	760	2360	1100	4570	2760	2710	2130	2490	2530
23	1620	1020	1130	880	1890	1090	5070	2710	2700	2140	2800	2410
24	1630	1050	1100	778	1590	1070	5600	2690	2720	2110	2910	2320
25	1600	1110	1060	770	1430	1060	5250	2840	2710	2350	2930	2280
26	1610	1090	1040	790	1400	1090	4680	2670	2760	2520	2600	2190
27	1570	1030	1070	640	1420	1070	3950	2540	2720	2550	2480	2180
28	1590	950	950	430	1480	1100	3560	2420	2720	2420	2410	2130
29	1620	885	840	410	1450	1120	3480	2350	2810	2370	2390	2140
30	1670	770	850	510	---	1110	3570	2650	2780	2340	2330	2100
31	1660	---	870	680	---	1120	---	2800	---	2340	2400	---
TOTAL	48140	34325	31843	28625	42700	34170	68343	98080	80920	69440	74320	71540
MEAN	1553	1144	1027	923	1472	1102	2278	3164	2697	2240	2397	2385
MAX	1670	1610	1480	1780	5650	1230	5600	3910	3080	2900	2930	2560
MIN	1430	770	670	410	720	980	730	2350	2510	1870	2180	2100
AC-FT	95490	68080	63160	56780	84700	67780	135600	194500	160500	137700	147400	141900

CAL YR 1979 TOTAL 550431 MEAN 1508 MAX 3890 MIN 670 AC-FT 1092000
WTR YR 1980 TOTAL 682446 MEAN 1865 MAX 5650 MIN 410 AC-FT 1354000

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May to September 1979.
SUSPENDED-SEDIMENT DISCHARGE: May to September 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT 09...	1645	--	1530	640	8.8	14.0	9	11.8	K24	240	99
NOV 05...	1520	--	1200	720	8.4	5.0	10	12.6	24	240	92
DEC 03...	1640	950	--	740	8.4	.5	7	12.6	35	270	130
JAN 07...	1650	750	--	740	8.2	.5	5	12.4	32	290	130
FEB 19...	1520	5650	--	650	8.3	4.5	65	10.2	230	210	71
APR 03...	1130	--	--	--	--	--	40	--	--	--	--
14...	1540	--	745	950	9.0	16.5	9	14.0	<1	280	130
30...	1130	--	3470	380	--	14.0	--	8.0	100	140	42
MAY 27...	1300	--	2550	565	--	14.5	25	8.2	56	200	77
JUN 23...	0900	--	2740	585	--	18.5	10	--	--	200	72
JUL 23...	0900	--	2150	610	8.5	22.5	25	6.7	33	210	87
AUG 21...	1200	--	2460	650	8.4	17.0	30	8.0	71	210	100
SEP 22...	0900	--	2530	593	8.2	16.0	--	8.5	32	220	92

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 09...	66	19	48	1.3	4.0	160	6	140	180	13	.5
NOV 05...	61	21	57	1.6	3.8	180	0	150	170	16	.5
DEC 03...	74	21	54	1.4	4.3	170	0	140	200	17	.5
JAN 07...	82	21	58	1.5	4.3	190	0	160	220	16	.6
FEB 19...	50	19	50	1.5	3.8	170	0	140	160	12	.5
APR 03...	--	--	--	--	--	--	--	--	--	--	--
14...	49	38	81	2.1	4.8	160	10	150	280	19	.6
30...	37	11	30	1.1	6.3	120	0	98	89	6.1	.3
MAY 27...	49	18	43	1.3	3.2	150	0	120	150	7.6	.5
JUN 23...	48	18	38	1.2	3.6	150	3	130	140	9.0	.6
JUL 23...	55	18	42	1.3	3.9	150	0	120	150	9.8	.4
AUG 21...	53	18	34	1.0	1.3	130	0	110	4.1	9.5	.4
SEP 22...	57	19	46	1.3	2.3	150	3	130	170	11	.4

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
OCT										
09...	6.0	422	.57	1740	.20	.060	6.4	.4	--	--
NOV										
05...	8.3	427	.58	1380	.40	.110	--	--	--	--
DEC										
03...	7.1	463	.63	1190	.21	.020	--	--	--	--
JAN										
07...	10	508	.69	1030	.56	.070	--	--	--	--
FEB										
19...	7.6	390	.53	5950	.84	.220	--	--	.00	3
APR										
03...	--	--	--	--	--	--	--	--	--	--
14...	2.2	564	.77	1130	.16	.070	--	--	--	1
30...	10	253	.34	2370	.94	.250	8.5	.5	--	--
MAY										
27...	11	350	.48	2410	.18	.080	--	--	--	12
JUN										
23...	9.6	340	.46	2520	.06	.080	--	--	--	2
JUL										
23...	7.0	381	.52	2210	4.7	.060	--	--	--	1
AUG										
21...	9.4	194	.26	1290	.21	.120	--	--	--	6
SEP										
22...	9.0	390	.53	2660	.32	.080	--	--	--	8

DATE	TIME	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, SUS-PENDED RECOV. (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BERYL-LIUM, SUS-PENDED RECOV. (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD)
OCT												
09...	1645	180	160	20	2	1	1	0	0	<1	2	1
APR												
30...	1130	720	660	60	3	1	2	0	--	<1	0	--

DATE	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB)
OCT												
09...	<1	0	0	10	2	0	2	140	--	<10	0	0
APR												
30...	<1	0	0	0	22	7	15	380	320	60	10	7

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM SUS-PENDED RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, SUS-PENDED RECOV. (UG/L AS MO)
OCT												
09...	1	20	0	30	20	10	7	.0	.0	.0	4	0
APR												
30...	3	20	0	20	130	120	8	.1	.1	.0	2	--

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 09...	<10	0	0	1	4	0	4	--	10	6	4
APR 30...	<10	10	9	1	2	1	1	2.0	330	320	6

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT)
OCT 09...	1645	<7.0	1.0	5.8	1.4	5.9	1.5	.16	10	<4.8	.7
JAN 07...	1650	21	<.4	7.4	<.4	6.9	<.4	.17	11	14	<.3
APR 14...	1540	14	1.0	7.2	1.1	7.4	1.1	.76	15	9.5	.7
JUL 23...	0900	<20	4.5	5.5	3.0	5.2	2.9	.15	9.0	<14	3.1

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE, WATER (DEG C)	PCB TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 27...	1300	2550	14.5	.00	0	.0	.0	.00	.0	.0	1
SEP 22...	0900	2530	16.0	--	--	--	--	--	--	--	--

DATE	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY 27...	.00	.0	.00	.1	.00	.0	.00	.00	.0	.00	.0
SEP 22...	--	--	--	--	--	--	--	--	--	--	--

DATE	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)
MAY 27...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00
SEP 22...	--	--	--	--	--	--	--	--	--	--

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOX-APHENE, TOTAL (UG/L)
MAY										
27...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0
SEP										
22...	--	--	--	--	--	--	--	--	--	--

DATE	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
MAY										
27...	0	.00	--	0	.00	.0	.00	0	.00	.0
SEP										
22...	--	--	.00	--	.00	--	.00	--	.00	--

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA-TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA-TERIAL (UG/KG)
MAY				
27...	.00	.0	.01	.0
SEP				
22...	.00	--	.00	--

DATE	TIME	TEMPER-ATURE, WATER (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM
OCT											
02...	1005	16.0	1420	46	176	--	--	--	--	--	--
21...	1320	9.5	1640	134	593	--	--	--	--	--	--
NOV											
15...	1200	5.0	1120	35	106	--	--	--	--	--	--
DEC											
10...	1135	4.0	1110	58	174	--	--	--	--	--	--
JAN											
05...	1530	3.0	1020	44	121	--	--	--	--	--	--
FEB											
22...	1700	4.0	2180	562	3310	--	--	--	--	--	--
MAR											
21...	1245	7.0	1100	94	279	--	--	--	--	--	--
APR											
14...	1100	11.0	741	31	62	--	--	--	--	--	--
30...	1130	14.0	3470	280	2620	27	42	73	85	94	100
MAY											
27...	1300	14.5	2550	172	1180	--	--	--	--	--	--
JUL											
21...	1730	23.0	2150	111	644	--	--	--	--	--	--
23...	0900	22.5	2150	78	453	--	--	--	--	--	--
AUG											
21...	1200	17.0	2460	150	996	--	--	--	--	--	--
SEP											
22...	0900	16.0	2530	52	355	--	--	--	--	--	--

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
OCT											
02...	68	--	--	--	--	--	--	--	--	--	--
21...	83	--	--	--	--	--	--	--	--	--	--
NOV											
15...	76	.1	.1	3	20	50	69	85	92	95	100
DEC											
10...	--	--	--	--	--	--	--	--	--	--	--
JAN											
05...	84	--	--	--	--	--	--	--	--	--	--
FEB											
22...	61	--	--	--	--	--	--	--	--	--	--
MAR											
21...	90	.1	.1	2	30	42	62	84	93	95	100
APR											
14...	88	.02	.02	.02	31	61	84	98	100	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
MAY											
27...	--	--	--	--	--	--	--	--	--	--	--
JUL											
21...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
AUG											
21...	--	--	--	--	--	--	--	--	--	--	--
SEP											
22...	--	--	--	--	--	--	--	--	--	--	--

06652700 GLENDO RESERVOIR NEAR GLENDO, WY

LOCATION.--Lat 42°28'21", long 104°57'28", in SW¼NE¼ sec.24, T.29 N., R.68 W., Platte County, Hydrologic Unit 10180008, on right bank in gate shaft house on North Platte River, 0.5 mi (0.8 km) southwest of Glendo Dam, and 5.0 mi (8.0 km) southeast of Glendo.

DRAINAGE AREA.--15,545 mi² (40,262 km²), of which 1,215 mi² (3,147 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder for elevations above 4,543.50 ft (1,384.859 m). Datum of gage is 4,543.50 ft (1,384.859 m), National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Reservoir is formed by rock-fill dam completed in October 1957. Storage began Oct. 17, 1957. Capacity, 789,400 acre-ft (973 hm³) at elevation 4,653.00 ft (1,418.234 m), spillway crest. Dead storage, 11,030 acre-ft (13.6 hm³). Figures given herein represent total contents. Water is used for irrigation in North Platte River basin, and for development of power.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 758,800 acre-ft (936 hm³) May 28, 1973, elevation, 4,650.94 ft (1,417.607 m); minimum daily (since appreciable storage was attained), 15,140 acre-ft (18.7 hm³) Sept. 28, 1966, elevation, 4,548.10 ft (1,386.261 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 540,000 acre-ft (666 hm³) May 16-18, maximum elevation, 4,636.80 ft (1,413.297 m) May 17; minimum daily, 67,600 acre-ft (83.4 hm³) Sept. 24, elevation, 4,571.40 ft (1,393.363 m).

Capacity table (elevation in feet, and contents, in acre-feet)

4,570	63,100	4,610	274,000
4,580	98,800	4,620	358,000
4,590	144,000	4,630	459,000
4,600	202,000	4,637	543,000

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77400	173000	237000	303000	359000	443000	509000	529000	514000	436000	278000	109000
2	80300	176000	238000	305000	361000	446000	510000	529000	513000	430000	268000	105000
3	83200	179000	240000	307000	363000	449000	511000	529000	512000	424000	258000	103000
4	86100	181000	243000	309000	365000	451000	511000	528000	511000	419000	248000	100000
5	90400	182000	246000	312000	368000	454000	511000	528000	510000	414000	239000	98100
6	91900	184000	248000	313000	370000	456000	511000	528000	510000	408000	229000	95800
7	94900	187000	251000	314000	373000	458000	511000	528000	510000	406000	219000	94100
8	98600	189000	253000	315000	375000	460000	511000	526000	510000	408000	212000	91700
9	101000	191000	256000	316000	377000	462000	511000	524000	509000	409000	207000	89500
10	104000	194000	258000	317000	380000	464000	511000	523000	509000	410000	202000	87600
11	107000	196000	260000	320000	382000	467000	511000	524000	509000	409000	196000	85700
12	109000	198000	262000	322000	384000	469000	510000	529000	508000	398000	192000	83700
13	112000	200000	264000	325000	386000	471000	510000	532000	508000	391000	186000	81700
14	116000	202000	265000	328000	389000	473000	507000	537000	508000	385000	181000	79700
15	119000	204000	267000	331000	391000	475000	504000	538000	508000	378000	177000	77600
16	122000	206000	269000	334000	393000	477000	499000	540000	507000	371000	173000	75500
17	125000	208000	270000	337000	394000	480000	499000	540000	505000	366000	168000	73500
18	128000	210000	272000	339000	396000	482000	498000	540000	501000	359000	164000	71400
19	131000	213000	275000	341000	403000	484000	497000	539000	497000	353000	159000	70000
20	134000	181000	277000	344000	409000	487000	497000	537000	492000	347000	155000	69300
21	137000	218000	279000	345000	414000	488000	497000	535000	487000	341000	151000	68600
22	140000	221000	282000	346000	418000	490000	498000	533000	484000	335000	147000	68100
23	143000	223000	284000	348000	422000	492000	502000	530000	481000	329000	143000	67700
24	146000	225000	286000	350000	426000	494000	512000	529000	477000	323000	140000	67600
25	149000	227000	289000	351000	429000	496000	517000	528000	473000	318000	136000	68200
26	152000	229000	291000	353000	432000	498000	522000	526000	469000	313000	131000	71000
27	155000	232000	293000	354000	435000	500000	524000	523000	462000	308000	127000	74700
28	159000	233000	295000	355000	438000	502000	526000	520000	456000	303000	124000	78400
29	162000	234000	297000	355000	441000	504000	527000	518000	449000	298000	121000	81900
30	165000	236000	300000	356000	---	506000	528000	517000	442000	292000	117000	85800
31	168000	---	301000	357000	---	508000	---	516000	---	286000	112000	---
MAX	168000	236000	301000	357000	441000	508000	528000	540000	514000	436000	278000	109000
MIN	77400	173000	237000	303000	359000	443000	497000	516000	442000	286000	112000	67600
(†)	4,594.35	4,604.90	4,613.44	4,619.86	4,628.28	4,634.19	4,635.85	4,634.85	4,628.45	4,611.57	4,583.17	4,576.62
(‡)	+93,400	+68,000	+65,000	+56,000	+84,000	+67,000	+20,000	-12,000	-74,000	-156,000	-174,000	-26,200

CAL YR 1979 MAX 496000 MIN 62200 ‡+33,000
WTR YR 1980 MAX 540000 MIN 67600 ‡+11,200
(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

06652800 NORTH PLATTE RIVER BELOW GLENDO RESERVOIR, WY

LOCATION.--Lat 42°27'25", long 104°56'50", in SW¼SW¼NW¼ sec.30, T.29 N., R.67 W., Platte County, Hydrologic Unit 10180008, on right bank opposite Sand Draw, 1.3 mi (2.1 km) upstream from Horseshoe Creek, 3.1 mi (5.0 km) downstream from Glendo Dam, and 5.2 mi (8.4 km) southeast of Glendo.

DRAINAGE AREA.--15,548 mi^2 (40,269 km^2), of which 1,215 mi^2 (3,147 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,488.94 ft (1,368.229 m), National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service).

REMARKS.--Records good except those below 10 ft^3/s (0.28 m^3/s), which are poor. Flow completely regulated by Glendo Reservoir since Oct. 17, 1957. (See sta 06652700.) Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Thirty-two discharge measurements furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,700 ft^3/s (275 m^3/s) June 1, 6, 1973; maximum gage height, 10.97 ft (3.344 m) June 1, 1973; minimum daily discharge, 0.41 ft^3/s (0.012 m^3/s) Oct. 17, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,400 ft^3/s (210 m^3/s) Aug. 1, gage height, 9.86 ft (3.005 m); minimum daily, 0.68 ft^3/s (0.019 m^3/s) Nov. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	1.1	1.2	1.7	2.0	2.0	670	2890	3240	5880	6500	4130
2	8.0	.87	1.3	1.7	2.1	2.0	705	3430	3550	5700	7300	3890
3	8.0	.74	1.6	1.7	2.1	2.1	705	3920	3570	5300	7300	3620
4	7.4	.68	2.0	1.7	2.0	2.2	968	3940	3000	4980	7250	3510
5	7.4	.74	2.2	1.7	2.0	1.9	1210	3850	2770	4960	7250	3500
6	6.9	1.7	2.0	1.7	1.9	2.0	1220	3480	2580	5270	7250	3480
7	6.9	1.6	2.0	1.6	1.9	1.9	1230	3370	2600	3160	7250	3470
8	6.9	1.9	1.7	1.6	1.9	1.9	1220	3590	2560	1110	5880	3480
9	6.4	1.5	1.7	1.6	1.7	1.9	1210	4050	2540	1090	4980	3500
10	6.4	1.2	1.9	1.6	1.7	2.0	1230	3430	2530	1370	4960	3500
11	21	1.6	2.0	1.7	1.7	2.9	1380	2390	2530	4510	4960	3500
12	1.2	1.4	1.5	1.9	1.9	4.4	1260	2230	2530	4800	4960	3500
13	1.2	1.2	1.5	2.2	1.9	4.4	1100	2100	2400	5390	4980	3500
14	1.1	1.2	1.6	2.4	1.9	4.4	1930	1880	2370	5230	4960	3500
15	1.1	1.3	2.4	2.1	2.0	4.4	2500	2260	2360	5110	4800	3500
16	1.0	1.4	1.7	2.0	1.9	4.1	2480	2920	2800	5160	4510	3520
17	1.0	1.4	1.6	1.9	2.0	4.1	2320	3310	3650	5160	4640	3510
18	1.0	1.4	1.7	1.9	2.2	3.8	2260	3710	4080	5070	4750	3480
19	1.0	1.4	1.7	2.0	3.3	3.8	2400	3780	4640	5050	4620	3220
20	1.0	1.4	1.7	2.1	2.7	3.8	2360	3860	4820	5030	4530	2780
21	1.0	1.4	1.7	2.1	3.8	102	2510	3970	4780	5090	4560	2760
22	1.2	1.3	1.7	2.7	3.1	173	2310	4000	4500	5160	4590	2660
23	1.5	1.3	1.7	2.4	2.6	173	2220	3850	4210	5200	4560	2570
24	1.7	1.3	1.7	2.2	2.2	173	1800	3590	4320	5030	4620	2280
25	1.9	1.3	1.7	2.2	2.2	173	2070	3620	4620	4890	4640	1860
26	2.0	1.3	1.7	2.1	2.2	173	2120	3650	4700	4870	4620	848
27	2.2	1.2	1.7	2.1	2.4	173	2510	3830	5380	4870	4380	382
28	2.4	1.2	1.7	2.0	2.4	187	2820	3550	5920	4870	4240	382
29	2.0	1.2	1.6	1.9	2.1	184	2760	3250	5920	4960	4240	323
30	1.6	1.2	1.7	1.9	---	184	2700	3220	5880	5140	4260	289
31	1.3	---	1.7	1.9	---	440	---	3240	---	5300	4190	---
TOTAL	130.7	38.43	53.6	60.3	63.8	2195.0	54178	104160	111350	144710	162530	84444
MEAN	4.22	1.28	1.73	1.95	2.20	70.8	1806	3360	3712	4668	5243	2815
MAX	21	1.9	2.4	2.7	3.8	440	2820	4050	5920	5880	7300	4130
MIN	1.0	.68	1.2	1.6	1.7	1.9	670	1880	2360	1090	4190	289
AC-FT	259	76	106	120	127	4350	107500	206600	220900	287000	322400	167500

CAL YR 1979 TOTAL 532133.43 MEAN 1458 MAX 7140 MIN .68 AC-FT 1055000
WTR YR 1980 TOTAL 663913.83 MEAN 1814 MAX 7300 MIN .68 AC-FT 1317000

06652800 NORTH PLATTE RIVER BELOW GLENDO RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

REMARKS.--No flow was observed Nov. 5.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 09...	1540	--	6.4	820	7.5	14.0	2	.0	--	280
DEC 03...	1530	--	1.7	720	8.5	4.0	5	14.4	<1	240
JAN 07...	1600	1.6	--	690	8.2	3.0	4	11.2	<1	260
FEB 19...	1400	--	2.7	740	8.1	5.0	1	11.8	<1	240
APR 14...	1420	--	2500	770	8.2	5.0	2	11.0	<1	240
MAY 12...	1200	--	2210	720	8.1	6.0	2	10.4	1	240
JUN 11...	1100	--	2530	605	8.9	17.0	4	14.8	1	210
JUL 09...	1530	--	1090	620	8.8	23.5	7	11.8	K5	210
AUG 06...	1530	--	7300	618	8.2	21.5	15	7.9	K4	210
SEP 03...	1045	--	3690	560	8.3	19.0	10	9.2	K3	220

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)
OCT 09...	75	71	26	66	1.7	6.8	250	0	200
DEC 03...	92	62	21	57	1.6	5.0	180	0	150
JAN 07...	96	70	21	61	1.6	4.8	200	0	160
FEB 19...	87	55	24	56	1.6	5.5	180	3	150
APR 14...	92	64	20	52	1.5	4.1	180	0	150
MAY 12...	130	60	23	47	1.3	4.9	130	0	110
JUN 11...	90	53	20	41	1.2	3.6	140	3	120
JUL 09...	95	49	20	38	1.2	3.4	140	0	120
AUG 06...	87	56	17	42	1.3	3.6	150	0	120
SEP 03...	92	52	21	34	1.0	3.1	150	3	130

06652800 NORTH PLATTE RIVER BELOW GLENDO RESERVOIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 09...	210	18	.5	14	532	.72	9.19	.10	.060
DEC 03...	190	15	.5	5.0	445	.61	2.04	.18	.020
JAN 07...	200	14	.5	6.7	476	.65	2.06	.62	.060
FEB 19...	180	15	.5	8.6	439	.60	3.20	.62	.060
APR 14...	200	14	.6	--	--	--	--	.57	.020
MAY 12...	200	13	.4	6.4	420	.57	2510	.20	.060
JUN 11...	170	11	.5	4.2	380	.52	2600	.05	.030
JUL 09...	150	10	.7	4.9	350	.48	1030	.03	.020
AUG 06...	150	12	.5	4.4	360	.49	7100	.10	.030
SEP 03...	150	5.2	.5	1.8	340	.46	3390	.07	.040

06655500 GUERNSEY RESERVOIR NEAR GUERNSEY, WY

LOCATION.--Lat 42°17'23", long 104°45'48", in NE¼NW¼ sec.27, T.27 N., R.66 W., Platte County, Hydrologic Unit 10180008, on gate structure at right end of dam on North Platte River and 1.2 mi (1.9 km) northwest of Guernsey.

DRAINAGE AREA.--16,224 mi² (42,020 km²), of which 1,216 mi² (3,149 km²) is probably noncontributing.

PERIOD OF RECORD.--January 1928 to current year. Prior to October 1950 monthend figures only, published in WSP 1310.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,370.00 ft (1,331.976 m), National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service); gage readings have been reduced to elevations of National Geodetic Vertical Datum of 1929. Prior to Sept. 20, 1966, nonrecording gages at same datum.

REMARKS.--Reservoir is formed by rock-fill dam completed in July 1927. Capacity, 45,230 acre-ft (55.8 hm³) at elevation 4,420 ft (1,347.2 m), top of spillway gate. Dead storage is negligible. Figures given herein represent total contents. Usable contents published prior to October 1956. Water is used for irrigation in eastern Wyoming and western Nebraska and for development of power.

COOPERATION.--Records furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 73,240 acre-ft (90.3 hm³) Oct. 17, 1929, elevation, 4,420.95 ft (1,347.506 m); minimum daily, 30 acre-ft (0.0370 hm³) Oct. 5, 6, 1958, elevation, 4,361.50 ft (1,329.385 m), and Oct. 18 to Nov. 3, 1969, elevation, 4,367.70 ft (1,331.275 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 37,200 acre-ft (45.9 hm³) May 13, elevation, 4,416.48 ft (1,346.143 m); minimum daily, 1,030 acre-ft (1.27 hm³) Oct. 11, 12, elevation, 4,379.76 ft (1,334.951 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

4,378	807	4,395	5,870	4,410	24,100
4,380	1,060	4,400	9,840	4,415	34,000
4,385	2,010	4,405	15,900	4,417	38,400
4,390	3,530				

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14800	2650	4060	5230	6500	9490	15000	34000	34800	35700	3680	31700
2	12900	2730	4100	5260	6530	9580	16200	33600	34700	35700	8120	31900
3	10900	2790	4140	5300	6570	9670	17400	34400	35600	35400	12300	31800
4	8750	2850	4190	5330	6610	9760	18700	35300	36000	34700	16600	31600
5	6550	2900	4250	5370	6670	9860	21100	36200	36400	33200	20600	31200
6	4540	2950	4290	5370	6720	9920	23400	36600	36300	31900	24600	31000
7	2650	3000	4340	5390	6790	10100	24500	36100	36100	29900	28600	30900
8	1200	3050	4400	5420	6840	10200	24700	35200	35400	22000	30800	30800
9	1120	3100	4460	5440	6880	10200	25100	33900	34800	14200	30700	30600
10	1060	3140	4500	5470	6920	10300	25500	34800	34700	6240	30300	30600
11	1030	3190	4520	5490	6970	10400	26000	35900	36000	4060	30000	30400
12	1030	3240	4550	5560	7010	10400	26500	36700	36700	1600	29800	30400
13	1120	3280	4590	5640	7050	10500	26700	37200	37000	2120	29800	30500
14	1260	3330	4620	5730	7100	10600	26400	36600	37000	2250	29900	30700
15	1390	3380	4660	5800	7140	10700	27000	35300	37000	2320	30400	30900
16	1510	3420	4690	5860	7180	10700	27600	34800	36000	2400	30100	30900
17	1620	3460	4710	5910	7230	10800	28100	34000	35200	2840	29800	32800
18	1710	3500	4760	5960	7270	10900	28000	34300	34200	2690	29600	33000
19	1800	3550	4790	6000	7490	10900	28800	35100	34000	2540	29900	33000
20	1870	2050	4830	6050	8060	11000	29300	35700	33600	2220	29900	32200
21	1940	3660	4860	6080	8370	11100	30600	36200	33400	2040	30100	31400
22	2010	3710	4900	6100	8660	11200	31500	36600	33900	2180	30300	30400
23	2080	3760	4930	6160	8830	11500	32400	36900	33500	2660	30700	29200
24	2140	3810	4970	6210	8940	11700	32300	36900	33200	2930	30900	28000
25	2210	3860	5000	6250	9040	12000	32600	36200	33400	2800	31200	26400
26	2260	3910	5040	6280	9140	12300	32900	35600	33000	2700	31500	24300
27	2320	3940	5090	6330	9240	12600	33800	35200	32300	2460	31500	21300
28	2380	3960	5120	6360	9300	12900	34600	35600	33000	2150	31400	18800
29	2470	3990	5160	6400	9400	13200	35100	35600	34800	1910	31400	17800
30	2550	4030	5180	6440	---	13500	34800	35500	35400	1700	31700	16300
31	2610	---	5200	6470	---	13900	---	35200	---	1840	31700	---
MAX	14800	4030	5200	6470	9400	13900	35100	37200	37000	35700	31700	33000
MIN	1030	2050	4060	5230	6500	9490	15000	33600	32300	1600	3680	16300
(†)	4,387.23	4,391.26	4,393.79	4,395.95	4,399.55	4,403.50	4,415.35	4,415.53	4,415.66	4,384.26	4,413.88	4,405.26
(‡)	-14,090	+1,420	+1,170	+1,270	+2,930	+4,500	+20,900	+400	+200	-33,560	+29,860	-15,400

CAL YR 1979 MAX 36100 MIN 1030 ‡-630
WTR YR 1980 MAX 37200 MIN 1030 ‡-400
(†) Elevation, in feet, at end of month.
(‡) Change in contents, in acre-feet.

06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WY

LOCATION.--Lat 42°16'50", long 104°45'15", in SE¼SE¼ sec.27, T.27 N., R.66 W., Platte County, Hydrologic Unit 10180008, on right bank 1.0 mi (1.6 km) northwest of Guernsey and 1.1 mi (1.8 km) downstream from Guernsey Dam.

DRAINAGE AREA.--16,237 mi^2 (42,054 km^2), of which 1,216 mi^2 (3,149 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1900 to current year (no winter records prior to 1903). Monthly discharge only for some periods, published in WSP 1310. Published as "near Guernsey" 1900-1901, 1904; as "at Guernsey" 1902-3, 1905-8, March to October 1912; as "at Whalen" 1909; as North Platte River and Interstate Canal at Whalen 1910-11, 1913-16; and as "above Whalen" 1917-27.

REVISED RECORDS.--WSP 1310: 1903-4, 1924. WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,340 ft (1,323 m), from topographic map. Prior to Nov. 17, 1908, and Mar. 30 to Oct. 31, 1912, nonrecording gages downstream at several sites within 0.8 mi (1.3 km) at different datums. May 1, 1909, to Dec. 31, 1927, nonrecording gages at different datums on river and diversion canals at Whalen Dam about 9.0 mi (14.5 km) downstream. Jan. 1, 1928, to Sept. 30, 1964, water-stage recorder at present site and datum 1.50 ft (0.457 m) higher.

REMARKS.--Records good except those below 10 ft^3/s (0.28 m^3/s), which are poor. Flow completely regulated by Guernsey Reservoir since 1927. (See sta 06655500.) Small diversions for irrigation between this station and diversion dam at Whalen. Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Thirty-four discharge measurements furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft^3/s (850 m^3/s) June 2 or 3, 1908, gage height, 11.5 ft (3.51 m), from floodmark, site and datum then in use, from rating curve extended above 13,000 ft^3/s (368 m^3/s); no flow Feb. 28, 1927, Nov. 19 to Dec. 8, Dec. 10-12, 14, 15, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,940 ft^3/s (168 m^3/s) July 16, gage height, 6.52 ft (1.987 m); minimum daily, 2.8 ft^3/s (0.079 m^3/s) Mar. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	953	6.2	5.7	6.2	6.5	3.5	23	3480	3600	5660	5180	4040
2	962	6.2	5.7	6.2	6.8	3.6	24	3660	3600	5750	5100	3880
3	1060	5.2	5.7	6.2	6.8	3.6	26	3740	3370	5520	4980	3720
4	1120	5.2	5.9	6.2	6.8	3.6	26	3770	3000	5370	4920	3700
5	1090	5.2	5.7	6.4	6.8	3.6	26	3700	2750	5650	5000	3680
6	1040	4.8	5.7	6.2	6.8	3.6	16	3650	2710	5710	5080	3610
7	953	4.8	5.7	6.0	6.8	3.6	682	3810	2800	5320	5100	3580
8	772	4.8	6.2	5.8	6.8	3.6	1070	4150	2980	5110	5120	3580
9	64	4.8	6.2	5.7	6.8	3.6	1030	4650	2910	5050	5080	3560
10	10	4.8	6.0	6.1	6.8	3.6	1020	3630	2250	5000	5080	3480
11	9.5	4.8	6.2	6.6	6.8	3.6	1010	2350	2040	5120	5040	3440
12	9.0	4.8	5.7	7.6	6.8	3.6	1010	2250	2210	5200	5000	3390
13	9.0	4.8	5.8	7.4	6.8	3.6	1010	2240	2330	5390	4940	3370
14	8.5	4.4	6.2	7.3	6.8	3.6	1700	2540	2400	5270	4890	3340
15	8.5	4.4	6.0	7.3	7.3	3.3	2300	3050	2460	5200	4750	3360
16	8.3	4.6	5.9	7.2	7.3	2.8	2310	3480	3110	5120	4670	3330
17	8.0	4.8	6.2	6.2	7.3	3.1	2320	4050	3860	5070	4730	3270
18	8.0	4.4	6.1	6.2	7.3	7.9	2290	3870	4340	5080	4770	3280
19	7.5	5.1	6.2	6.2	9.2	7.9	2320	3710	4710	5070	4570	3300
20	7.5	5.5	6.2	6.2	7.9	7.9	2280	3770	4980	5070	4440	3280
21	7.0	5.9	6.2	6.2	8.5	7.9	2310	3960	4810	5030	4460	3250
22	7.0	5.8	6.2	6.2	6.8	6.8	2320	4000	4380	5010	4440	3230
23	6.5	5.6	6.2	6.6	4.0	7.9	2350	3970	4360	4930	4440	3240
24	6.5	5.1	6.2	6.8	4.0	10	2310	3970	4340	4960	4440	3130
25	6.0	5.0	6.3	6.8	3.6	15	2290	4050	4460	4890	4440	2920
26	6.0	5.0	6.2	6.5	3.7	16	2290	4160	4790	4840	4440	2320
27	5.7	5.2	6.2	6.0	3.8	16	2310	4150	5310	4870	4420	1950
28	5.7	4.6	6.2	5.5	3.9	18	2600	3710	5430	4890	4320	1640
29	6.8	4.7	6.2	5.5	4.0	18	2890	3440	4950	4870	4210	1080
30	5.2	5.2	6.2	5.6	---	20	3130	3490	5510	4960	4150	851
31	5.2	---	6.2	6.0	---	21	---	3560	---	5100	4130	---
TOTAL	8175.4	151.7	187.3	196.9	183.5	239.8	47293	112010	110750	160080	146330	93801
MEAN	264	5.06	6.04	6.35	6.33	7.74	1576	3613	3692	5164	4720	3127
MAX	1120	6.2	6.3	7.6	9.2	21	3130	4650	5510	5750	5180	4040
MIN	5.2	4.4	5.7	5.5	3.6	2.8	16	2240	2040	4840	4130	851
AC-FT	16220	301	372	391	364	476	93810	222200	219700	317500	290200	186100

CAL YR 1979 TOTAL 544063.6 MEAN 1491 MAX 5540 MIN 2.4 AC-FT 1079000
WTR YR 1980 TOTAL 679398.6 MEAN 1856 MAX 5750 MIN 2.8 AC-FT 1348000

06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-58, 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1951 to September 1958, October 1965 to September 1968, May to September 1979.
SUSPENDED-SEDIMENT DISCHARGE: April 1947 to June 1953, May to September 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT								
02...	1230	962	--	--	18.0	--	--	--
31...	1125	4.0	--	--	6.0	280	83	73
NOV								
15...	1230	4.4	--	--	--	250	78	61
JAN								
03...	1600	6.2	--	--	2.0	310	97	87
14...	1500	6.2	--	--	3.0	300	95	74
FEB								
12...	1430	6.8	--	--	2.0	280	81	73
MAR								
17...	1550	3.3	--	--	4.0	250	70	58
APR								
18...	1035	2310	--	--	9.5	250	94	66
MAY								
09...	1420	4650	--	--	12.0	240	84	60
JUN								
10...	1600	2400	650	8.3	16.5	230	99	55
JUL								
09...	1010	5100	585	8.3	20.0	200	77	53
AUG								
06...	1045	5040	595	8.3	22.0	220	89	54
SEP								
03...	1600	3720	575	8.5	19.0	220	92	50

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT									
02...	--	--	--	--	--	--	--	--	--
31...	24	45	1.2	5.0	240	0	200	170	14
NOV									
15...	24	48	1.3	5.3	210	0	170	170	13
JAN									
03...	24	54	1.3	5.8	260	0	210	200	13
14...	27	46	1.2	5.6	250	0	210	160	12
FEB									
12...	23	56	1.5	5.0	230	6	200	170	13
MAR									
17...	27	55	1.5	4.6	220	0	180	160	15
APR									
18...	20	53	1.5	3.4	190	0	160	200	14
MAY									
09...	22	49	1.4	3.3	190	0	160	160	14
JUN									
10...	23	41	1.2	3.2	160	0	130	180	11
JUL									
09...	17	38	1.2	3.1	150	0	120	150	9.4
AUG									
06...	21	35	1.0	3.2	160	0	130	150	8.6
SEP									
03...	23	36	1.1	3.7	150	3	130	150	14

06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT								
02...	--	--	--	--	--	--	--	95
31...	.5	14	466	.63	5.03	.40	.110	--
NOV								
15...	.5	9.1	430	.58	5.11	.10	.010	--
JAN								
03...	.5	15	530	.72	8.87	.67	.020	--
14...	.4	16	464	.63	7.77	.79	.000	--
FEB								
12...	.6	15	477	.65	8.76	.57	.000	--
MAR								
17...	.5	8.7	439	.60	3.91	.06	.010	--
APR								
18...	.5	.0	470	.64	2930	.20	.030	--
MAY								
09...	.2	5.6	410	.56	5150	.18	.010	--
JUN								
10...	.5	5.6	360	.49	2330	.06	.030	--
JUL								
09...	.6	5.2	350	.48	4820	.02	.030	--
AUG								
06...	.5	4.1	350	.48	4760	.00	.020	--
SEP								
03...	.5	.2	350	.48	3520	.00	.050	--

06657000 NORTH PLATTE RIVER BELOW WHALEN DIVERSION DAM, WY

LOCATION.Lat 42°14'20", long 104°36'29", in NE¼SW¼ sec.12, T.26 N., R.65 W., Goshen County, Hydrologic Unit 10180009, on left bank 0.2 mi (0.3 km) downstream from Cottonwood Draw, 2.5 mi (4.0 km) downstream from Whalen diversion dam, and 4.8 mi (7.7 km) northwest of Fort Laramie.

DRAINAGE AREA.16,425 mi^2 (42,541 km^2), of which 1,219 mi^2 (3,157 km^2) is probably noncontributing.

PERIOD OF RECORD.May 1909 to current year. Prior to Apr. 16, 1938, published as "below Whalen", and Apr. 16, 1938, to Sept. 30, 1974, as "at recorder station, below Whalen".

REVISED RECORDS.WSP 1310: 1924. WDR WY761: Drainage area.

GAGE.Waterstage recorder. Altitude of gage is 4,250 ft (1,295 m), from topographic map. Prior to Apr. 16, 1938, nonrecording gages at Whalen diversion dam and canals 2.5 mi (4.0 km) upstream at different datums. Apr. 16, 1938, to Nov. 17, 1955, waterstage recorder at site 200 ft (61 m) downstream, and Nov. 18, 1955, to Feb. 16, 1972, at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.Records good except those below 10 ft^3/s (0.28 m^3/s), which are fair. Flow regulated by Whalen diversion dam 2.5 mi (4.0 km) upstream. Natural flow of stream affected by storage reservoirs, transbasin diversions, power development, groundwater withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.Twenty-one discharge measurements furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.Maximum discharge determined, 22,000 ft^3/s (623 m^3/s) June 26, 1955, gage height, 9.85 ft (3.002 m), from rating curve extended above 4,500 ft^3/s (127 m^3/s) on basis of studies of peak flow measurements of upstream floods; no flow at times in 1910, 1916, 192527, 196264, 1967, 197071, 197577.

EXTREMES FOR CURRENT YEAR.Maximum discharge, 2,860 ft^3/s (81.0 m^3/s) May 8, gage height, 4.63 ft (1.411 m); minimum daily, 3.1 ft^3/s (0.088 m^3/s) Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	14	6.0	4.9	4.6	8.2	14	2420	1460	2150	1650	790
2	64	13	6.8	5.4	6.0	7.6	14	2680	1450	2280	1600	663
3	76	12	7.6	6.0	7.2	6.5	14	2690	1440	2100	1450	560
4	161	11	8.6	6.2	7.9	7.2	15	2700	1400	1860	1400	552
5	153	11	9.6	6.0	8.2	6.8	15	2690	1420	2210	1500	536
6	133	12	9.0	3.6	7.9	5.4	17	2540	1810	2270	1560	506
7	159	11	7.9	3.1	7.6	4.6	207	2600	1920	1950	1630	492
8	190	9.6	6.8	3.3	6.8	4.3	1080	2630	2140	1640	1640	492
9	39	9.0	6.0	3.6	5.7	3.8	784	2580	2120	1570	1640	492
10	145	9.3	5.7	4.9	6.0	3.8	945	1960	1790	1470	1570	471
11	123	8.6	4.6	5.2	6.2	3.8	945	338	1230	1610	1570	485
12	75	9.0	4.1	6.5	5.7	4.6	956	295	1270	1700	1530	492
13	36	9.0	4.6	10	6.0	9.0	967	353	1440	1920	1450	506
14	13	7.9	5.4	10	6.0	10	1390	577	1440	1770	1440	513
15	12	6.8	4.9	9.0	4.9	10	2160	1120	1410	1700	1470	536
16	11	6.0	4.1	6.8	6.0	11	2240	1570	1400	1650	1200	520
17	11	6.2	4.6	5.7	6.2	11	2300	2210	1880	1610	1220	492
18	13	6.0	5.4	5.4	7.2	10	2340	2140	2000	1580	1280	520
19	65	5.4	5.7	6.0	9.6	9.6	2360	1960	2220	1540	1100	528
20	35	5.2	5.2	5.7	49	11	2340	1960	2200	1510	934	520
21	28	4.9	5.4	5.2	27	13	2340	2080	2000	1500	1010	471
22	25	4.4	5.2	4.6	23	13	2380	2090	1540	1470	967	492
23	22	4.3	4.9	4.9	19	14	2380	2020	1230	1400	993	499
24	19	4.4	5.2	5.7	13	14	2340	2020	1110	1410	1020	485
25	18	4.5	4.9	5.4	10	14	2280	2030	1130	1360	1010	457
26	16	4.5	4.9	4.9	8.2	16	2300	2220	1300	1330	1000	295
27	15	4.4	4.9	3.8	8.8	18	2280	2220	1740	1340	967	279
28	14	4.5	4.7	4.3	9.1	12	2220	1820	1960	1370	860	436
29	16	4.6	4.5	4.3	9.4	12	2240	1380	[illegible]	1360	820	307
30	19	6.0	4.3	4.3	---	12	2200	1380	2030	1410	840	180
31	16	---	4.3	4.3	---	14	---	1410	---	1560	840	---
TOTAL	1791	228.5	175.8	169.0	302.2	300.2	44063	58683	49580	51600	39161	14567
MEAN	57.8	7.62	5.67	5.45	10.4	9.68	1469	1893	1653	1665	1263	486
MAX	190	14	9.6	10	49	18	2380	2700	2220	2280	1650	790
MIN	11	4.3	4.1	3.1	4.6	3.8	14	295	1110	1330	820	180
AC-FT	3550	453	349	335	599	595	87400	116400	98340	102300	77680	28890

CAL YR 1979 TOTAL 140018.34 MEAN 384 MAX 1980 MIN .28 AC-FT 277700
WTR YR 1980 TOTAL 260620.70 MEAN 712 MAX 2700 MIN 3.1 AC-FT 516900

06657500 LARAMIE RIVER NEAR GLENDEVEY, CO

LOCATION.--Lat 40°48'02", long 105°52'40", in NW¼NW¼ sec.36, T.10 N., R.76 W., Larimer County, Hydrologic Unit 10180010, on left bank 200 ft (61 m) downstream from bridge on county road, 350 ft (110 m) downsteam from Nunn Creek, 1,300 ft (400 m) upstream from Stub Creek, and 3.0 mi (4.8 km) east of Glendevey.

DRAINAGE AREA.--101 mi^2 (262 km^2).

PERIOD OF RECORD.--June 1904 to October 1905, August 1910 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "at Glendevey" 1905, 1910-18.

REVISED RECORDS.--WSP 469: 1911-12. WSP 506: Drainage area. WSP 1310: 1905, 1914. WSP 1918: 1918 (monthly runoff).

GAGE.--Water-stage recorder. Altitude of gage is 8,230 ft (2,509 m), from topographic map. See WSP 1730 for history of changes prior to Sept. 20, 1935.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 700 acres (2.83 km^2) of hay meadows above station. Transbasin diversions above station to Cache la Poudre River and tributaries (see elsewhere in this report).

AVERAGE DISCHARGE.--71 years, 73.3 ft^3/s (2.076 m^3/s), 53,100 acre-ft/yr (65.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,240 ft^3/s (63.4 m^3/s) June 9, 1923, gage height, 4.55 ft (1.387 m), site and datum then in use, from floodmarks, from rating curve extended above 1,400 ft^3/s (40 m^3/s); minimum daily recorded, 5.0 ft^3/s (0.14 m^3/s) Feb. 14, 15, 1911, but may have been less during winter periods of no gage-height record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 804 ft^3/s (22.8 m^3/s) June 12, gage height, 3.13 ft (0.954 m); minimum daily, 12 ft^3/s (0.34 m^3/s) Sept. 3-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	27	28	16	17	17	15	79	412	171	23	14
2	29	28	27	16	18	17	17	68	379	172	22	13
3	28	29	26	16	17	17	15	78	433	164	21	12
4	28	30	26	16	18	17	16	83	533	130	21	12
5	28	30	25	15	19	17	16	92	637	101	20	12
6	28	30	23	15	18	17	15	99	666	76	20	12
7	25	30	21	16	18	18	15	113	675	66	19	12
8	21	29	22	16	18	19	16	128	660	66	19	13
9	23	29	21	16	18	18	15	136	689	63	19	17
10	26	29	20	16	18	17	15	134	707	62	19	15
11	26	30	19	16	16	19	15	123	740	55	18	16
12	25	29	19	15	17	17	18	128	745	55	17	14
13	25	28	19	16	17	18	18	109	713	71	16	16
14	25	27	19	16	16	18	16	97	665	53	17	16
15	25	26	19	16	16	17	17	94	607	44	22	15
16	27	25	19	17	18	17	18	94	518	38	21	15
17	29	25	19	18	18	18	18	105	470	38	18	14
18	29	25	18	17	17	18	21	103	369	33	16	14
19	28	27	18	16	18	18	26	109	321	31	14	13
20	30	26	18	16	18	16	33	123	297	39	13	23
21	32	26	18	16	18	17	42	150	293	62	13	19
22	29	26	17	17	18	15	53	233	281	60	13	15
23	29	26	18	16	17	16	73	323	275	58	13	15
24	31	26	19	16	17	18	74	431	278	56	16	14
25	33	26	17	16	17	15	65	427	262	58	16	14
26	33	27	17	17	17	14	64	361	253	56	22	14
27	31	27	17	18	17	15	63	353	224	51	16	14
28	28	27	17	18	17	15	72	423	199	29	14	14
29	27	27	19	18	18	16	83	457	165	24	13	14
30	25	27	19	18	---	15	91	387	159	24	13	14
31	26	---	17	18	---	15	---	415	---	24	14	---
TOTAL	859	824	621	509	506	521	1035	6055	13625	2030	538	435
MEAN	27.7	27.5	20.0	16.4	17.4	16.8	34.5	195	454	65.5	17.4	14.5
MAX	33	30	28	18	19	19	91	457	745	172	23	23
MIN	21	25	17	15	16	14	15	68	159	24	13	12
AC-FT	1700	1630	1230	1010	1000	1030	2050	12010	27030	4030	1070	863

CAL YR 1979 TOTAL 30867 MEAN 84.6 MAX 880 MIN 13 AC-FT 61220
WTR YR 1980 TOTAL 27558 MEAN 75.3 MAX 745 MIN 12 AC-FT 54660

06659500 LARAMIE RIVER AND PIONEER CANAL NEAR WOODS, WY

LOCATION.--River: Lat 41°08'17", long 105°58'49", in NW¼SE¼ sec.36, T.14 N., R.77 W., Albany County, Hydrologic Unit 10180010, on left bank 100 ft (30 m) upstream from diversion dam for Pioneer Canal, 2.2 mi (3.5 km) downstream from Fox Creek, 2.5 mi (4.0 km) northeast of Woods, and 23 mi (37 km) southwest of Laramie.

Canal: Lat 41°08'21", long 105°58'45", in SE¼NE¼ sec.36, T.14 N., R.77 W., Albany County, on left bank 400 ft (122 m) downstream from headgate.

DRAINAGE AREA.--434 mi² (1,124 km²). Drainage area at mouth, 4,565 mi² (11,823 km²).

PERIOD OF RECORD.--April 1912 to September 1924, October 1926 to September 1927, October 1931 to current year (no winter records since 1972). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1918-20, 1922, 1924. WSP 1710: Drainage area.

GAGE.--River: Water-stage recorder and concrete control. Datum of gage is 7,388.99 ft (2,252.164 m), National Geodetic Vertical Datum of 1929. Apr. 16 to Nov. 15, 1912, nonrecording gage and Nov. 16, 1912, to Sept. 22, 1915, water-stage recorder 90 ft (27 m) downstream between dam crest and canal headgates at datum 1.00 ft (0.305 m) higher. Sept. 23, 1915, to Sept. 30, 1924, Apr. 19 to Sept. 30, 1927, and Apr. 11, 1932, to Sept. 30, 1935, water-stage recorder at site 50 ft (15 m) downstream at datum 1.00 ft (0.305 m) higher. Oct. 1, 1935, to July 13, 1950, water-stage recorder at site 50 ft (15 m) downstream at present datum.

Canal: Water-stage recorder and Parshall flume. Altitude of gage is 7,390 ft (2,250 m), from topographic map. Apr. 16, 1912, to Apr. 10, 1923, nonrecording gage; Apr. 11, 1923, to Sept. 30, 1924, and Apr. 19 to June 9, 1927, water-stage recorder; June 10 to Sept. 30, 1927, and Apr. 11, 1932, to May 8, 1938, nonrecording gage; May 9, 1938, to Apr. 26, 1966, water-stage recorder at site 1.5 mi (2.4 km) downstream at different datums. Apr. 27, 1966, to May 8, 1967, at present site, at datum 0.06 ft (0.018 m) lower.

REMARKS.--Records good. Pioneer Canal diverts from left bank of river at diversion dam 100 ft (30 m) downstream for irrigation in vicinity of Laramie. Records show combined flow of river and canal. Three small reservoirs above station in Wyoming, total capacity, about 600 acre-ft (0.740 hm³) for irrigation, stock water, and domestic use. Diversions for irrigation of about 5,200 acres (21.0 km²) above station. Transbasin diversions above station to Cache la Poudre River and tributaries (see elsewhere in this report).

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD (combined flow river and canal).--Maximum discharge, 5,060 ft³/s) June 10, 1923 (river discharge by computation of peak flow over dam); minimum daily (1950-72), 10 ft³/s (0.28 m³/s) Aug. 30, Sept. 2-5, 1954.

EXTREMES FOR CURRENT YEAR (combined flow river and canal).--Maximum discharge, 1,630 ft³/s (46.2 m³/s) May 25; minimum daily during period of operation, 27 ft³/s (0.76 m³/s) Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							46	319	1210	385	50	37
2							49	272	1140	397	53	37
3							51	287	1140	367	53	34
4							45	327	1220	311	50	30
5							51	425	1330	253	49	29
6							51	488	1430	204	46	29
7							47	530	1510	179	43	29
8							43	612	1480	175	43	30
9							43	665	1460	153	46	40
10							45	692	1440	137	46	48
11							48	770	1480	127	45	38
12							53	774	1520	127	42	39
13							52	642	1510	140	41	39
14							60	564	1440	146	43	39
15							76	536	1320	118	51	33
16							100	516	1170	98	66	30
17							110	561	1040	86	59	30
18							132	550	921	78	47	28
19							179	561	837	76	40	27
20							206	599	835	71	36	32
21							254	666	768	69	34	48
22							284	924	723	77	31	44
23							300	1230	680	71	32	32
24							336	1500	655	68	33	29
25							268	1560	619	76	43	29
26							248	1390	582	79	47	30
27							248	1270	535	76	53	30
28							252	1290	467	68	43	29
29							292	1280	399	53	37	29
30							321	1250	361	49	33	29
31							---	1220	---	46	31	---
TOTAL							4290	24270	31222	4360	1366	1007
MEAN							143	783	1041	141	44.1	33.6
MAX							336	1560	1520	397	66	48
MIN							43	272	361	46	31	27
AC-FT							8510	48140	61930	8650	2710	2000

06659580 SAND CREEK AT COLORADO-WYOMING STATE LINE

LOCATION.--Lat 40°59'37", long 105°45'35", in NW¼NW¼SW¼ sec.24, T.12 N., R.75 W., Larimer County, CO, Hydrologic Unit 10180010, on right bank 1,200 ft (370 m) south of Colorado-Wyoming State line and 17 mi (27 km) southwest of Tie Siding, WY.

DRAINAGE AREA.--29.2 mi^2 (75.6 km^2).

PERIOD OF RECORD.--October 1968 to current year (no winter records since 1971).

GAGE.--Water-stage recorder. Altitude of gage is 7,580 ft (2,310 m), from topographic map. Prior to July 19, 1977, gage at site 700 ft (210 m) upstream at different datum.

REMARKS.--Records good. Natural flow affected by diversion above station to Cache la Poudre River basin through Wilson Supply ditch (see sta 06750500). Water imported above station from Deadman Creek in Laramie River basin is rediverted through Wilson Supply ditch but is wasted down Sand Creek at times. Diversions for irrigation of about 170 acres (69 hm^2) above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,710 ft^3/s (190 m^3/s) July 19, 1977, from slope-area measurement of peak flow, gage height, 6.65 ft (2.027 m), from floodmarks, present site and datum; minimum daily during period of operation, 0.13 ft^3/s (0.004 m^3/s) July 26-28, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 211 ft^3/s (5.98 m^3/s) June 6, gage height, 2.04 ft (0.622 m); minimum daily during period of operation, 0.44 ft^3/s (0.012 m^3/s) Aug. 10-13, 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							3.9	40	109	11	1.1	.85
2							4.9	36	101	8.6	1.0	.77
3							5.3	40	101	8.3	.93	.77
4							3.7	42	123	6.8	.85	.70
5							2.3	45	148	6.3	.77	.63
6							2.2	46	155	5.3	.63	.56
7							2.8	51	146	5.6	.63	.50
8							7.8	54	137	6.8	.50	.56
9							6.6	56	137	6.6	.50	.70
10							3.9	58	128	6.3	.44	1.1
11							3.0	59	123	6.1	.44	1.4
12							3.7	56	112	6.1	.44	1.3
13							4.6	47	101	6.1	.44	1.2
14							6.1	43	82	6.3	.50	1.2
15							5.3	40	68	5.1	.77	1.2
16							6.3	39	58	3.9	1.1	1.1
17							6.1	43	52	3.0	1.3	.93
18							8.3	41	45	2.8	1.1	.77
19							11	41	38	2.5	.77	.70
20							16	47	39	2.3	.63	1.6
21							20	53	28	2.3	.50	2.0
22							23	72	25	2.3	.44	2.2
23							28	101	21	2.2	.44	1.8
24							28	121	20	1.9	.50	1.6
25							21	123	18	1.8	.50	1.4
26							21	121	16	1.8	.77	1.3
27							20	107	14	1.8	1.3	1.3
28							23	109	13	1.8	1.3	1.2
29							28	123	12	1.5	1.0	1.2
30							36	101	11	1.3	.85	1.2
31							---	96	---	1.2	.85	---
TOTAL							361.8	2051	2181	135.7	23.29	33.74
MEAN							12.1	66.2	72.7	4.38	.75	1.12
MAX							36	123	155	11	1.3	2.2
MIN							2.2	36	11	1.2	.44	.50
AC-FT							718	4070	4330	269	46	67

06660100 LARAMIE RIVER AT HOWELL, WY

LOCATION.--Lat 41°24'50", long 105°36'56", in NE¼SE¼SE¼ sec.30, T.17 N., R.73 W., Albany County, Hydrologic Unit 10180010, at bridge on Howell road, 100 ft (30 m) downstream from bridge on Union Pacific Railroad, 0.2 mi (0.3 km) south of Howell, and 7.3 mi (11.7 km) north of Laramie.

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT 15...	1320	20	860	8.4	9.0	6	10.2	140	340
NOV 12...	1500	50	710	7.9	.5	9	11.4	K36	270
DEC 10...	1515	50	700	7.5	.0	10	10.6	K490	260
JAN 14...	1500	41	620	7.4	.5	7	7.9	K1200	240
FEB 25...	1315	53	700	7.5	.0	4	8.5	1200	280
APR 23...	1300	201	535	7.7	10.5	45	7.8	2100	200
MAY 19...	1200	360	716	7.9	11.0	10	8.6	K110	260
JUN 23...	1300	274	675	7.9	19.0	6	7.6	--	250
JUL 14...	1045	47	1190	8.4	17.5	5	9.3	96	450
AUG 19...	1130	1.5	1760	8.2	14.5	10	8.3	240	730
SEP 18...	1215	5.5	1540	8.2	12.5	--	9.2	130	670

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT 15...	190	74	38	54	1.3	4.2	150	270	21
NOV 12...	140	62	29	43	1.1	3.2	130	230	12
DEC 10...	140	58	28	40	1.1	2.8	120	200	14
JAN 14...	110	56	25	37	1.0	3.1	130	150	20
FEB 25...	150	66	27	35	.9	3.0	130	190	12
APR 23...	120	51	18	23	.7	2.7	85	150	8.1
MAY 19...	150	60	26	31	.8	3.1	110	210	8.7
JUN 23...	110	58	25	36	1.0	2.6	140	180	8.5
JUL 14...	270	98	51	72	1.5	4.3	180	410	25
AUG 19...	500	140	92	110	1.8	7.8	230	670	62
SEP 18...	450	130	84	100	1.7	8.4	220	560	61

06660100 LARAMIE RIVER AT HOWELL, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)
OCT 15...	.4	10	563	.77	30.4	.23	.530	1.6
NOV 12...	.4	12	471	.64	63.6	.17	.380	1.2
DEC 10...	.3	12	428	.58	57.8	.13	.500	1.5
JAN 14...	.4	12	384	.52	42.5	.42	.640	2.0
FEB 25...	.4	11	423	.58	60.5	.18	.610	1.9
APR 23...	.3	9.7	315	.43	171	.15	.450	1.4
MAY 19...	.4	14	419	.57	407	.03	.170	.52
JUN 23...	.4	12	407	.55	301	.03	.110	.34
JUL 14...	.7	3.9	775	1.05	98.3	.45	.390	1.2
AUG 19...	.8	6.3	1230	1.67	4.98	1.1	1.700	5.2
SEP 18...	.8	8.6	1090	1.48	16.2	.50	.940	2.9

06660500 LARAMIE RIVER AT TWO RIVERS, WY

LOCATION.--Lat 41°28'22", long 105°43'30", in NW¼NE¼SW¼ sec.5, T.17 N., R.74 W., Albany County, Hydrologic Unit 10180010, at former gaging station, at old Two Rivers Post Office, 0.6 mi (1.0 km) upstream from Little Laramie River, and 14 mi (23 km) northwest of Laramie.

DRAINAGE AREA.--1,224 mi^2 (3,170 km^2), of which 188 mi^2 (487 km^2) is probably noncontributing.

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
OCT 15...	1200	20	940	8.7	8.5	370	230	82	39	60	1.4	3.3
NOV 12...	1400	50	730	7.9	.5	290	160	67	29	52	1.3	3.0
DEC 10...	1420	50	700	7.5	.0	260	150	67	23	40	1.1	3.0
JAN 14...	1400	41	670	7.4	.5	290	160	63	31	43	1.1	3.0
APR 23...	1140	201	600	7.8	9.0	220	120	54	21	30	.9	2.8
MAY 19...	1100	360	650	7.9	11.0	270	160	74	20	32	.9	2.5
JUN 23...	1200	274	710	7.9	18.5	280	150	68	26	36	.9	2.8
JUL 14...	1000	47	1180	8.2	18.0	500	300	110	54	71	1.4	3.6
AUG 19...	1030	1.5	1480	8.1	14.5	620	400	140	67	110	1.9	4.6
SEP 18...	1120	5.5	1260	9.1	12.0	580	400	120	67	88	1.6	3.6

DATE	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 15...	170	0	140	300	19	.6	5.1	594	.81	32.1	.10	.540
NOV 12...	160	0	130	240	18	.5	9.9	500	.68	67.5	.20	.320
DEC 10...	140	0	120	190	18	.5	12	424	.58	57.2	.12	.690
JAN 14...	160	0	130	200	19	.6	11	451	.61	49.9	.46	.640
APR 23...	120	0	98	170	11	.4	10	359	.49	195	.14	.270
MAY 19...	130	0	110	220	8.2	.6	14	436	.59	424	.07	.150
JUN 23...	160	0	130	220	9.9	.6	12	450	.61	333	.00	.060
JUL 14...	240	0	200	390	24	.6	5.3	780	1.06	99.0	.23	.190
AUG 19...	270	0	220	550	37	.3	7.4	1050	1.43	4.25	.00	.280
SEP 18...	180	22	180	530	39	.8	--	--	--	14.6	.02	.450

06661000 LITTLE LARAMIE RIVER NEAR FILMORE, WY

LOCATION.--Lat 41°17'42", long 106°02'03", in SE¼NE¼SE¼ sec.4, T.15 N., R.77 W., Albany County, Hydrologic Unit 10180010, on right bank 40 ft (12 m) downstream from State Highway 130, 1.2 mi (1.9 km) west of Filmore, and 4.4 mi (7.1 km) downstream from North Fork.

DRAINAGE AREA.--157 mi^2 (407 km^2). Area at site used prior to Sept. 8, 1976, 156 mi^2 (404 km^2).

PERIOD OF RECORD.--July 1902 to September 1903 (published as "near Hatton"), May 1911 to November 1926, October 1932 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1903, 1914, 1922-26. WSP 1440: 1902. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,610 ft (2,320 m), from topographic map. Prior to Sept. 16, 1938, nonrecording gages, and Sept. 16, 1938 to Sept. 7, 1976, water-stage recorder, at sites 0.7 mi (1.1 km) upstream at different datums.

REMARKS.--Records good. Ten small reservoirs above station, combined capacity, about 160 acre-ft (0.20 hm^3), for irrigation, stock water, recreation, and domestic use. Diversions above station for irrigation of about 11,020 acres (44.6 km^2), of which about 20 acres (8.1 hm^2) are below station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--55 years (water years 1903, 1912-26, 1933-71), 103 ft^3/s (2.917 m^3/s), 74,620 acre-ft/yr (92.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,450 ft^3/s (97.7 m^3/s) June 10, 1965, gage height, 5.33 ft (1.625 m), site and datum then in use; minimum daily determined, 1.0 ft^3/s (0.028 m^3/s) Sept. 17-20, 1913.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,250 ft^3/s (35.4 m^3/s) June 12, gage height, 4.07 ft (1.241 m); minimum daily during period of operation, 22 ft^3/s (0.62 m^3/s) Sept. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							29	184	575	304	60	35
2							33	140	535	463	58	31
3							41	110	575	376	54	28
4							31	131	683	308	48	25
5							33	156	826	258	47	22
6							39	176	929	215	43	22
7							41	191	958	200	41	23
8							34	200	929	197	39	28
9							34	236	1050	184	40	46
10							41	249	1080	171	41	39
11							38	290	1070	158	37	35
12							41	322	1100	158	35	53
13							41	249	1020	149	34	57
14							40	215	887	142	38	42
15							78	212	772	131	50	36
16							86	200	622	116	47	31
17							102	218	575	108	44	27
18							137	236	595	106	39	26
19							151	200	570	114	35	23
20							158	230	500	104	35	26
21							171	265	520	97	34	27
22							168	368	500	91	30	28
23							203	525	476	93	29	27
24							163	639	436	88	31	28
25							120	617	427	82	36	28
26							110	545	414	81	53	28
27							112	520	392	74	43	26
28							114	570	326	67	37	26
29							126	639	284	64	33	25
30							156	601	277	64	30	24
31							---	606	---	62	34	---
TOTAL							2671	10040	19903	4825	1255	922
MEAN							89.0	324	663	156	40.5	30.7
MAX							203	639	1100	463	60	57
MIN							29	110	277	62	29	22
AC-FT							5300	19910	39480	9570	2490	1830

06661500 LITTLE LARAMIE RIVER AT TWO RIVERS, WY

LOCATION.--Lat 41°28'07", long 105°43'56", in SE¼SE¼SE¼ sec.6, T.17 N., R.74 W., Albany County, Hydrologic Unit 10180010, at former gaging station, at old Two Rivers Post Office, 0.5 mi (0.8 km) upstream from mouth, and 14 mi (23 km) northwest of Laramie.

DRAINAGE AREA.--376 mi^2 (974 km^2), of which 58 mi^2 (150 km^2) is probably noncontributing.

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM AD-SORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
OCT 15...	1110	4.6	420	8.2	8.0	170	22	43	16	25	.8	2.3
NOV 12...	1230	16	530	7.9	.5	200	44	50	18	32	1.0	2.3
DEC 10...	1250	13	620	7.4	.0	240	68	64	20	41	1.1	3.8
JAN 14...	1150	5.1	530	7.4	.0	210	62	53	20	38	1.1	2.5
APR 23...	1015	173	605	7.8	8.0	230	82	50	24	36	1.0	3.7
MAY 19...	1030	195	680	7.9	11.0	280	110	59	31	43	1.1	4.4
JUN 23...	1115	380	370	7.6	18.0	160	21	46	11	20	.7	2.3
JUL 14...	0930	50	420	8.0	17.0	170	22	40	16	18	.6	1.8
AUG 19...	0930	1.6	370	8.2	13.5	150	27	37	14	21	.7	2.6
SEP 18...	1015	.94	405	8.1	10.5	190	45	46	17	28	.9	1.2

DATE	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 15...	180	0	150	70	4.3	.4	4.2	252	.34	3.13	.00	.010
NOV 12...	190	0	160	100	12	.4	8.9	317	.43	13.7	.00	.070
DEC 10...	210	0	170	130	15	.5	12	386	.53	13.5	.00	.070
JAN 14...	180	0	150	110	20	.5	8.5	344	.47	4.74	.61	.010
APR 23...	180	0	150	130	9.1	.4	8.1	350	.48	163	.03	.050
MAY 19...	210	0	170	170	7.6	.6	11	430	.58	226	.02	.040
JUN 23...	170	0	140	51	3.8	.4	9.3	230	.31	236	.00	.030
JUL 14...	180	0	150	51	4.0	.5	5.0	230	.31	31.1	.23	.040
AUG 19...	150	0	120	35	4.3	.3	2.5	191	.26	.83	.00	.050
SEP 18...	170	0	140	87	10	.4	.4	270	.37	.69	.00	.150

06661500 LITTLE LARAMIE RIVER AT TWO RIVERS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN									
23...	1115	--	0	.00	.0	.00	0	.00	.0
JUL									
14...	0930	.00	0	.00	.0	.00	0	.00	.0
SEP									
18...	1015	.00	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
JUN				
23...	.00	.0	.02	.0
JUL				
14...	.00	.0	.00	.0
SEP				
18...	.00	.0	.00	.0

06661585 LARAMIE RIVER NEAR BOSLER, WY

LOCATION.--Lat 41°33'17", long 105°40'58", in NW¼NW¼NE¼ sec.10, T.18 N., R.74 W., Albany County, Hydrologic Unit 10180010, on left bank 50 ft (15 m) upstream from bridge on U.S. Highways 30 and 287, 0.2 mi (0.3 km) northwest of Bosler Junction, 1.7 mi (2.7 km) south of Bosler, and 2.0 mi (3.2 km) downstream from Soil Bank Boughton Canal diversion dam.

DRAINAGE AREA.--1,790 mi^2 (4,636 km^2), of which 283 mi^2 (733 km^2) is probably noncontributing.

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,030 ft (2,140 m), from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversion above station for irrigation of about 54,700 acres (221 km^2), of which about 2,300 acres (9.31 km^2) are below station, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--8 years, 154 ft^3/s (4.361 m^3/s), 111,600 acre-ft/yr (138 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,820 ft^3/s (51.5 m^3/s) June 12, 1979, gage height, 6.83 ft (2.082 m); maximum gage height, 8.40 ft (2.560 m) Apr. 22, 1973 (backwater from ice jam); minimum daily discharge, 0.20 ft^3/s (0.006 m^3/s) Sept. 4, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,160 ft^3/s (32.9 m^3/s) June 14, gage height, 5.78 ft (1.762 m); minimum daily, 0.20 ft^3/s (0.006 m^3/s) Sept. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	48	49	63	61	79	122	231	889	179	36	1.5
2	17	48	48	63	63	88	124	221	897	176	34	.90
3	17	48	51	64	64	90	125	221	853	201	31	.40
4	16	54	53	62	64	87	127	222	805	239	27	.20
5	16	62	65	65	65	85	135	222	725	233	24	.40
6	17	69	70	66	67	83	141	221	658	213	20	1.2
7	18	68	77	65	65	77	143	237	661	190	17	1.2
8	20	62	79	63	63	79	142	251	741	172	15	1.2
9	21	64	83	64	61	81	147	265	873	159	15	1.8
10	21	64	85	66	60	84	153	282	993	150	12	1.8
11	23	81	80	67	59	86	160	338	1060	136	8.0	1.5
12	24	95	78	68	59	84	155	462	1110	129	6.0	.60
13	26	96	76	68	59	87	140	553	1140	129	6.0	1.8
14	27	90	74	69	60	90	180	654	1150	127	6.0	9.0
15	26	85	74	72	61	95	200	654	1090	131	5.6	16
16	30	87	70	74	59	100	250	546	1010	140	5.6	10
17	31	93	73	73	58	120	265	457	901	136	5.6	3.9
18	33	99	76	71	61	134	290	439	753	121	5.6	3.6
19	35	107	75	70	63	137	310	448	605	115	4.5	3.6
20	40	115	77	70	64	149	320	454	497	105	3.3	3.0
21	53	79	78	69	66	160	390	397	442	98	2.7	3.0
22	59	58	76	69	65	170	410	343	430	85	2.1	2.1
23	69	55	75	68	64	165	428	338	400	75	2.1	1.2
24	78	54	73	67	62	155	532	403	354	70	3.3	.40
25	76	54	73	67	62	140	504	507	311	65	2.4	.40
26	74	51	70	66	64	133	454	630	275	61	3.0	.40
27	74	50	70	65	64	130	388	785	245	57	3.0	.40
28	76	49	69	64	67	115	334	917	215	50	3.0	.40
29	76	49	63	62	69	117	299	993	204	46	2.7	.60
30	73	50	63	62	---	120	275	961	194	40	1.8	.60
31	56	---	61	61	---	120	---	937	---	38	1.8	---
TOTAL	1239	2084	2184	2063	1819	3440	7643	14589	20481	3866	315.1	73.10
MEAN	40.0	69.5	70.5	66.5	62.7	111	255	471	683	125	10.2	2.44
MAX	78	115	85	74	69	170	532	993	1150	239	36	16
MIN	16	48	48	61	58	77	122	221	194	38	1.8	.20
AC-FT	2460	4130	4330	4090	3610	6820	15160	28940	40620	7670	625	145

CAL YR 1979 TOTAL 63982.00 MEAN 175 MAX 1780 MIN 13 AC-FT 126900
WTR YR 1980 TOTAL 59796.20 MEAN 163 MAX 1150 MIN .20 AC-FT 118600

06662000 LARAMIE RIVER NEAR LOOKOUT, WY

LOCATION.--Lat 41°45'44", long 105°41'16", in NE¼NW¼SE¼ sec.27, T.21 N., R.74 W., Albany County, Hydrologic Unit 10180010, on right bank 155 ft (47 m) downstream from bridge on county road, 1.0 mi (1.6 km) upstream from Wheatland Reservoir No. 2, and 9.0 mi (14.5 km) northeast of Lookout.

DRAINAGE AREA.--2,174 mi² (5,631 km²), of which 603 mi² (1,562 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1912 to December 1917, January 1921 to December 1927, April 1932 to current year (no winter records since 1972). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1913-17. WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,962.68 ft (2,122.225 m), National Geodetic Vertical Datum of 1929. Prior to Apr. 22, 1915, nonrecording gage and Apr. 22, 1915, to Aug. 31, 1917, water-stage recorder, at bridge 155 ft (47 m) upstream at same datum. Oct. 14, 1931, to Sept. 17, 1938, at site 125 ft (38 m) upstream at same datum.

REMARKS.--Records good. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation of about 108,000 acres (437 km²) above station, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--51 years (water years 1913-17, 1922-27, 1933-72), 131 ft³/s (3.710 m³/s), 94,910 acre-ft/yr (117 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,340 ft³/s (94.6 m³/s) June 17, 1957, gage height, 6.41 ft (1.954 m); maximum gage height, about 8.0 ft (2.4 m), occurred in 1973 (backwater from ice); no flow at times in 1934-35, 1939-40, 1954-55, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,180 ft³/s (33.4 m³/s) June 14, gage height, 4.21 ft (1.283 m); minimum daily during period of operation, 1.3 ft³/s (0.037 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							123	274	830	175	51	3.4
2							126	216	855	157	48	2.8
3							128	207	875	159	42	2.5
4							129	204	855	192	40	2.8
5							131	204	815	228	36	2.3
6							143	204	756	216	32	2.2
7							147	204	733	207	28	4.5
8							150	225	756	164	25	3.6
9							152	258	875	143	24	3.0
10							155	288	950	134	20	3.0
11							169	322	1030	119	19	3.4
12							175	400	1080	113	17	3.6
13							179	478	1120	111	15	2.8
14							185	556	1160	107	15	2.8
15							206	650	1130	101	14	2.0
16							239	635	1090	99	12	8.0
17							270	508	1020	101	11	17
18							300	450	910	103	10	9.5
19							305	442	770	101	9.5	5.5
20							330	462	630	93	8.7	5.5
21							410	434	522	91	8.0	5.0
22							430	386	482	87	7.3	4.0
23							460	354	458	82	6.0	3.0
24							520	372	418	75	6.0	3.0
25							580	438	364	73	8.0	2.8
26							620	526	312	73	10	2.3
27							510	638	270	70	9.5	2.2
28							405	517	228	66	7.3	1.8
29							344	840	204	64	5.0	1.6
30							305	880	192	61	4.5	1.3
31							---	865	---	56	3.6	---
TOTAL							8326	13437	21690	3621	552.4	117.2
MEAN							278	433	723	117	17.8	3.91
MAX							620	880	1160	228	51	17
MIN							123	204	192	56	3.6	1.3
AC-FT							16510	26650	43020	7180	1100	232

06662000 LARAMIE RIVER NEAR LOOKOUT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, WATER (DEG C)	PCB TOTAL (UG/L)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-DANE, TOTAL (UG/L)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDD, TOTAL (UG/L)
OCT											
22...	0920	75	.5	.00	0	--	.00	.0	.0	0	.00
JUN											
23...	0950	141	17.0	.00	4	.0	.00	.0	.0	0	.00

DATE	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN, TOTAL (UG/L)	ENDO-SULFAN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT										
22...	.0	.00	.0	.00	.0	.00	.00	.0	.00	.0
JUN										
23...	.0	.00	.6	.00	.0	.00	.00	.0	.00	.0

DATE	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	MALA-THION, TOTAL (UG/L)
OCT										
22...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00
JUN										
23...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00

DATE	METH-OXY-CHLOR, TOTAL (UG/L)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	PER-THANE IN BOTTOM MATERIL (UG/KG)	TOX-APHENE, TOTAL (UG/L)
OCT										
22...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0
JUN										
23...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0

DATE	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT										
22...	0	.00	.00	0	.00	.0	.00	0	.00	.0
JUN										
23...	0	.00	--	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MA-TERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MA-TERIAL (UG/KG)
OCT				
22...	.00	.0	.00	.0
JUN				
23...	00	.0	.01	.0

06664400 SYBILLE CREEK ABOVE MULE CREEK, NEAR WHEATLAND, WY

LOCATION.--Lat 41°50'39", long 105°13'15", in NE¼SW¼SE¼ sec.27, T.22 N., R.70 W., Platte County, Hydrologic Unit 10180011, on right bank just upstream from bridge on U.S. Highway 34, 900 ft (274 m) upstream from Mule Creek, 2.9 mi (4.7 km) upstream from Bluegrass Creek, and 20 mi (32 km) southwest of Wheatland.

DRAINAGE AREA.--194 mi^2 (502 km^2).

PERIOD OF RECORD.--April 1974 to current year (no winter records).

GAGE.--Water-stage recorder. Altitude of gage is 5,340 ft (1,628 m), from topographic map.

REMARKS.--Records good. Seven small reservoirs above station, combined capacity, about 400 acre-ft (0.493 hm^3), for irrigation. Diversions above station for irrigation of about 2,020 acres (8.17 km^2), of which about 80 acres (32.4 hm^2) lies below station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 502 ft^3/s (14.2 m^3/s) July 24, 1977, gage height, 4.83 ft (1.472 m), from rating curve extended above 60 ft^3/s (1.70 m^3/s) on basis of slope-conveyance study; minimum daily, 0.49 ft^3/s (0.014 m^3/s) Sept. 8, 9, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 322 ft^3/s (9.12 m^3/s) May 16, gage height, 3.77 ft (1.149 m), from rating curve extended above 175 ft^3/s (4.96 m^3/s); minimum daily during period of operation, 6.4 ft^3/s (0.181 m^3/s) Sept. 15, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							23	258	122	29	18	9.9
2							23	232	110	30	18	9.4
3							23	238	98	31	17	8.9
4							23	229	89	31	15	8.5
5							24	221	80	31	14	8.0
6							27	232	73	29	13	7.6
7							29	238	69	27	13	7.2
8							29	238	67	28	14	7.2
9							30	232	60	27	15	7.2
10							33	238	54	25	14	7.6
11							36	265	50	24	14	7.2
12							36	272	46	24	13	7.2
13							36	270	44	26	13	7.6
14							39	280	42	26	13	7.6
15							47	291	39	27	15	6.4
16							57	308	37	27	12	7.6
17							61	305	37	25	12	7.6
18							70	291	35	26	11	7.2
19							90	294	35	27	11	6.4
20							105	294	34	26	9.4	7.2
21							137	291	33	29	9.4	7.6
22							173	286	31	27	8.0	7.6
23							245	288	29	25	8.0	7.6
24							210	268	30	24	19	7.6
25							210	250	30	24	16	8.0
26							193	225	30	25	13	8.5
27							191	200	30	24	12	8.0
28							195	175	29	22	9.9	7.6
29							221	167	28	21	9.9	8.0
30							243	158	28	20	9.4	8.0
31							---	146	---	18	9.9	---
TOTAL							2859	7680	1519	805	398.9	232.0
MEAN							95.3	248	50.6	26.0	12.9	7.73
MAX							245	308	122	31	19	9.9
MIN							23	146	28	18	8.0	6.4
AC-FT							5670	15230	3010	1600	791	460

06665790 SYBILLE CREEK ABOVE CANAL NO. 3, NEAR WHEATLAND, WY

LOCATION.--Lat 41°54'40", long 105°07'36", in NW¼SW¼NE¼ sec.4, T.22 N., R.69 W., Platte County, Hydrologic Unit 10180011, on right bank 100 ft (30 m) upstream from State Highway 34, 200 ft (61 m) downstream from Deadhead Creek, 2.7 mi (4.3 km) upstream from canal No. 3, and 19.7 mi (3.2 km) southwest of Wheatland.

PERIOD OF RECORD.--April to September 1980.

GAGE.--Water-stage recorder. Altitude of gage is 5,040 ft (1,536 m), from topographic map.

REMARKS.--Records good. Most of flow during irrigation season is water released from Wheatland Reservoir No. 2, capacity 98,930 acre-ft (122 hm^3), on the Laramie River and diverted down Bluegrass Creek for irrigation of land near Wheatland. Diversions for irrigation of about 4,400 acres (1,780 hm^2) above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 496 ft^3/s (14.0 m^3/s) Apr. 23, gage height, 2.45 ft (0.747 m); minimum daily during period of operation, 8.9 ft^3/s (0.25 m/s) Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							46	421	110	57	88	37
2							46	381	106	51	88	36
3							48	345	96	62	85	36
4							48	333	83	88	83	36
5							51	299	73	99	90	34
6							57	302	72	108	90	30
7							59	299	66	108	88	28
8							56	278	66	110	90	28
9							56	282	66	99	92	29
10							60	285	72	92	88	29
11							64	317	79	94	83	26
12							60	349	77	96	79	23
13							57	365	75	94	79	19
14							60	361	73	88	81	14
15							66	357	72	81	90	66
16							85	365	81	75	85	49
17							101	361	75	72	83	36
18							133	349	75	75	83	31
19							210	219	79	77	70	29
20							296	90	62	75	68	29
21							341	68	56	75	64	25
22							357	57	51	72	64	25
23							417	54	46	73	62	24
24							357	34	42	77	70	24
25							296	19	54	88	73	24
26							268	16	62	99	72	21
27							264	19	64	96	64	18
28							264	62	72	90	48	14
29							292	90	96	81	52	8.9
30							310	113	99	90	49	18
31							---	118	---	90	38	---
TOTAL							4825	7008	2200	2632	2339	846.9
MEAN							161	226	73.3	84.9	75.5	28.2
MAX							417	421	110	110	92	66
MIN							46	16	42	51	38	8.9
AC-FT							9570	13900	4360	5220	4640	1680

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY

LOCATION.--Lat 42°12'02", long 104°32'16", in NE¼SE¼NE¼ sec.28, T.26 N., R.64 W., Goshen County, Hydrologic Unit 10180011, on right bank 600 ft (183 m) upstream from bridge on county road, 0.6 mi (1.0 km) upstream from mouth, and 1.1 mi (1.8 km) southwest of Fort Laramie.

DRAINAGE AREA.--4,564 mi^2 (11,821 km^2), of which 631 mi^2 (1,634 km^2) is probably noncontributing. Drainage area at mouth, 4,565 mi^2 (11,823 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1915 to current year (no winter records prior to 1927). Monthly discharge only for some periods, published in WSP 1310. Records for water years 1926-39, previously published including diversions to Gering-Fort Laramie Canal, were adjusted to exclude flow in the canal in WSP 1310. Prior to October 1931, published as "at Fort Laramie."

REVISED RECORDS.--WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,220 ft (1,286 m), from topographic map. Apr. 4, 1915, to Mar. 31, 1925, nonrecording gage at site 0.1 mi (0.2 km) downstream at different datum. Apr. 1, 1925, to Sept. 30, 1932, nonrecording gage and Oct. 1, 1932, to Aug. 20, 1935, water-stage recorder at site 4.3 mi (6.9 km) upstream at different datum. Aug. 21, 1935, to Nov. 2, 1970, water-stage recorder at site 0.3 mi (0.5 km) upstream at different datum. Nov. 3, 1970, to May 9, 1973, water-stage recorder 0.1 mi (0.2 km) downstream at different datum. May 10, 1973, to Apr. 5, 1977, water-stage recorder 4.3 mi (6.9 km) upstream at different datum.

REMARKS.--Records fair except those for winter months and periods of no gage-height record, Oct. 24-27, Nov. 30 to Dec. 3, Dec. 30 to Jan. 7, Jan 27-31, Feb. 29 to Mar. 1, Mar. 4 to Apr. 17, Apr. 24, 25, May 11, which are poor. Diversion, at times, to Gering-Fort Laramie Canal, 5.4 mi (8.7 km) upstream. Natural flow of stream affected by transbasin diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation of about 176,000 acres (710 km^2) above station, and return flow from irrigated areas.

AVERAGE DISCHARGE.--24 years (water years 1957-80), 136 ft^3/s (3.852 m^3/s), 98,530 acre-ft/yr (121 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,260 ft^3/s (177 m^3/s) May 10, 1973, gage height, 9.40 ft (2.865 m) site and datum then in use; no flow Jan. 31 to Mar. 20, Oct. 24 to Dec. 17, 1926, Mar. 1-26, 1927, Apr. 14, 1938 (all flow diverted by Gering-Fort Laramie Canal).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,720 ft^3/s (48.7 m^3/s) May 15, gage height, 6.18 ft (1.884 m); maximum gage height, 6.37 ft (1.942 m) Jan. 31 (backwater from ice); minimum daily discharge, 5.8 ft^3/s (0.16 m^3/s) Nov. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	32	12	90	102	130	164	720	947	59	34	36
2	34	28	20	93	117	165	164	765	844	63	34	34
3	32	20	35	95	140	162	164	820	788	63	34	34
4	32	17	59	95	143	157	164	820	570	63	34	34
5	34	15	74	90	140	150	164	812	185	59	34	34
6	36	16	92	85	137	154	165	861	172	55	32	34
7	37	16	100	79	130	160	166	853	155	52	32	34
8	37	14	110	74	112	164	168	877	149	50	30	34
9	37	14	108	70	117	168	169	903	143	48	39	34
10	36	14	97	78	124	172	170	853	137	47	36	34
11	37	15	88	90	130	176	172	980	128	45	34	32
12	37	16	79	97	134	180	175	1060	128	43	30	30
13	39	15	67	100	135	183	177	1060	128	43	30	30
14	41	14	55	100	136	186	183	1060	137	45	32	29
15	39	13	57	94	133	188	188	1160	143	41	37	29
16	39	15	59	97	110	189	196	1170	155	39	47	27
17	39	19	61	108	107	190	207	1170	162	41	41	27
18	39	23	63	108	114	190	221	1170	172	41	39	29
19	37	21	84	122	122	190	239	1180	175	41	39	27
20	32	15	105	100	130	191	273	1120	175	39	41	26
21	27	9.8	125	104	137	190	350	1160	165	41	41	26
22	29	11	125	110	143	188	369	1190	168	39	43	24
23	36	12	125	120	149	184	601	1170	178	37	43	23
24	37	9.8	128	125	153	180	695	1160	175	39	45	23
25	38	9.8	125	128	156	175	730	1090	110	36	45	26
26	39	9.8	122	125	158	171	742	1080	73	34	43	20
27	41	8.0	100	100	162	169	773	1020	72	34	43	19
28	43	6.5	92	95	166	167	773	982	70	36	39	16
29	45	5.8	89	94	170	166	757	1030	70	34	39	14
30	47	6.6	80	95	---	165	757	926	61	30	36	15
31	42	---	86	96	---	164	---	1000	---	32	34	---
TOTAL	1152	441.1	2622	3057	3907	5364	10236	31222	6735	1369	1160	834
MEAN	37.2	14.7	84.6	98.6	135	173	341	1007	225	44.2	37.4	27.8
MAX	47	32	128	128	170	191	773	1190	947	63	47	36
MIN	27	5.8	12	70	102	130	164	720	61	30	30	14
AC-FT	2280	875	5200	6060	7750	10640	20300	61930	13360	2720	2300	1650

CAL YR 1979 TOTAL 27533.1 MEAN 75.4 MAX 254 MIN 5.8 AC-FT 54610
WTR YR 1980 TOTAL 68099.1 MEAN 186 MAX 1190 MIN 5.8 AC-FT 135100

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW (CFS)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)
OCT										
09...	1320	--	39	800	8.2	12.0	3	11.2	K10	320
31...	1330	--	45	--	--	--	--	--	--	--
NOV										
05...	1230	--	15	820	8.2	3.0	9	11.8	K120	330
DEC										
03...	1320	--	48	870	8.1	2.0	7	12.2	K9	340
07...	1345	--	102	--	--	--	--	--	--	--
JAN										
07...	1400	79	--	880	8.2	.5	9	12.0	21	370
31...	1545	--	--	--	--	--	--	--	--	--
FEB										
19...	1130	122	--	800	8.2	2.0	9	12.4	K13	310
MAR										
03...	1440	--	158	--	--	--	--	--	--	--
APR										
14...	1220	183	--	825	8.2	9.5	10	11.0	K4	300
22...	1420	--	369	--	--	--	--	--	--	--
MAY										
08...	1540	--	886	440	8.3	15.0	25	9.2	60	160
JUN										
10...	0845	--	143	650	8.0	16.0	6	7.8	K24	250
JUL										
08...	1000	--	55	775	8.0	18.0	4	7.9	110	320
AUG										
05...	1015	--	34	840	8.0	14.5	3	8.8	76	310
SEP										
10...	1115	--	34	750	8.0	14.0	7	9.6	46	99

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT										
09...	90	93	22	59	1.4	7.3	280	0	230	190
31...	--	--	--	--	--	--	--	--	--	--
NOV										
05...	92	89	25	54	1.3	6.0	290	0	240	160
DEC										
03...	100	95	25	57	1.3	6.8	290	0	240	190
07...	--	--	--	--	--	--	--	--	--	--
JAN										
07...	120	110	25	63	1.4	6.0	310	0	250	200
31...	--	--	--	--	--	--	--	--	--	--
FEB										
19...	72	84	24	54	1.3	4.8	290	0	240	150
MAR										
03...	--	--	--	--	--	--	--	--	--	--
APR										
14...	110	80	25	48	1.2	5.1	230	0	190	170
22...	--	--	--	--	--	--	--	--	--	--
MAY										
08...	12	40	14	19	.7	4.0	180	0	150	44
JUN										
10...	53	68	20	33	.9	4.5	240	0	200	120
JUL										
08...	99	84	26	50	1.2	5.1	270	0	220	160
AUG										
05...	89	87	22	52	1.3	5.2	270	0	220	160
SEP										
10...	4	28	7.3	8.0	.3	1.0	110	3	95	20

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT 09...	18	.6	23	553	.75	58.2	.30	.020	--	--
31...	--	--	--	--	--	--	--	--	114	14
NOV 05...	22	.7	27	524	.71	21.2	.70	.010	--	--
DEC 03...	19	.7	27	561	.76	72.7	.67	.010	--	--
07...	--	--	--	--	--	--	--	--	108	30
JAN 07...	21	.8	28	605	.82	129	.98	.070	--	--
31...	--	--	--	--	--	--	--	--	142	--
FEB 19...	29	.7	26	522	.71	172	1.5	.060	--	--
MAR 03...	--	--	--	--	--	--	--	--	56	--
APR 14...	19	.6	7.6	480	.65	237	.39	.030	--	--
22...	--	--	--	--	--	--	--	--	182	181
MAY 08...	7.7	.4	15	230	.31	550	.20	.070	136	325
JUN 10...	1.9	.6	22	390	.53	151	.15	.040	50	19
JUL 08...	16	.8	24	500	.68	74.3	.21	.060	15	2.2
AUG 05...	16	.6	23	500	.68	45.9	.22	.010	36	3.3
SEP 10...	1.6	.5	4.4	130	.18	11.9	.02	.030	64	5.9

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT 09...	1320	120	2	0	2	10	1
MAY 08...	1540	830	2	0	7	0	17

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 09...	130	0	20	.0	0	1	10
MAY 08...	1500	5	50	.2	6	1	80

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	PCB TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL (UG/L)
JUN										
10...	0845	.00	0	.0	.0	.00	.0	.0	0	.00

DATE	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN										
10...	.0	.00	.0	.00	.0	.00	.00	.0	.00	.0

DATE	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)
JUN										
10...	.00	.0	.00	.00	.0	.00	.0	.00	.0	.00

DATE	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL (UG/L)
JUN										
10...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0

DATE	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN									
10...	0	.00	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
JUN				
10...	.00	.0	.03	.0

06671000 RAWHIDE CREEK NEAR LINGLE, WY

LOCATION.--Lat 42°07'32", long 104°19'36", in SE¼NE¼ sec.20, T.25 N., R.62 W., Goshen County, Hydrologic Unit 10180009, on right bank 200 ft (61 m) upstream from bridge on U.S. Highway 26, 1.0 mi (1.6 km) east of Lingle, and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--522 mi² (1,352 km²).

PERIOD OF RECORD.--May 1928 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1440: 1932, 1936(M). WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,160 ft (1,268 m), from topographic map. See WSP 1918 for history of changes prior to May 16, 1955.

REMARKS.--Records good. Low flow represents return water from lands irrigated by Interstate Canal in Rawhide Creek basin. Six small reservoirs above station, combined capacity, about 460 acre-ft (0.567 hm³), for irrigation. Diversions for irrigation of about 1,600 acres (6.48 km²) above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--43 years (water years 1929-71), 21.5 ft³/s (0.609 m³/s), 15,580 acre-ft/yr (19.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,970 ft³/s (112 m³/s) Sept. 7, 1946, gage height, 11.76 ft (3.584 m); no flow July 5-7, 1961, Apr. 12, 29, 1966, Mar. 20-28, 1967, Apr. 13, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 58 ft³/s (1.64 m³/s) May 16, gage height, 3.58 ft (1.091 m); minimum daily during period of operation, 0.90 ft³/s (0.025 m³/s) Apr. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							8.9	4.7	21	3.8	13	15
2							9.3	7.1	24	11	12	13
3							10	6.8	25	15	13	11
4							11	7.1	21	11	10	7.5
5							10	7.5	17	10	11	8.6
6							8.9	7.8	16	7.8	11	8.9
7							8.2	7.5	4.1	8.2	10	11
8							7.1	7.5	19	6.1	8.2	13
9							6.4	24	12	6.8	8.6	16
10							6.1	31	11	5.0	13	15
11							5.8	30	10	6.1	14	15
12							5.5	30	7.1	6.1	13	15
13							4.1	30	6.8	8.9	13	16
14							4.1	32	7.5	8.9	15	15
15							6.8	42	8.6	9.6	33	17
16							5.5	56	6.8	7.8	43	16
17							2.0	25	7.8	8.9	33	15
18							1.7	24	8.6	9.6	36	16
19							1.5	46	11	13	31	13
20							1.1	41	13	15	31	13
21							.90	38	10	15	29	16
22							1.1	34	7.8	12	26	19
23							1.3	27	10	11	21	25
24							1.5	27	12	14	24	24
25							1.7	27	6.4	17	21	21
26							2.4	26	4.7	17	19	17
27							2.8	25	4.7	15	17	13
28							2.8	24	8.2	13	15	22
29							3.8	20	9.3	16	13	23
30							4.1	21	2.6	10	11	23
31							---	20	---	13	13	---
TOTAL							146.40	756.0	333.0	331.6	580.8	473.0
MEAN							4.88	24.4	11.1	10.7	18.7	15.8
MAX							11	56	25	17	43	25
MIN							.90	4.7	2.6	3.8	8.2	7.5
AC-FT							290	1500	661	658	1150	938

06672500 CHERRY CREEK DRAIN NEAR TORRINGTON, WY

LOCATION.--Lat 42°02'22", long 104°10'07", in SW¼NW¼ sec.23, T.24 N., R.61 W., Goshen County, Hydrologic Unit 10180009, on left bank 50 ft (15 m) downstream from bridge on county road, 0.6 mi (1.0 km) upstream from mouth, and 2.0 mi (3.2 km) southeast of Torrington.

DRAINAGE AREA.--356 mi^2 (922 km^2).

PERIOD OF RECORD.--May to September 1931, May to September 1932, May 1935 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Altitude of gage is 4,080 ft (1,244 m), from topographic map. Prior to June 12, 1935, nonrecording gage at site 1.0 mi (1.6 km) upstream at different datum. June 12, 1935, to Sept. 30, 1945, water-stage recorder at site 100 ft (30 m) downstream at datum 2.00 ft (0.610 m) higher. Oct. 1, 1945, to Nov. 27, 1950, water-stage recorder at site 100 ft (30 m) downstream at present datum.

REMARKS.--Records good. Flow is mainly return water from irrigation.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--36 years (water years 1936-71), 21.6 ft^3/s (0.612 m^3/s), 15,650 acre-ft/yr (19.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,420 ft^3/s (68.5 m^3/s) June 27, 1955, gage height, 10.31 ft (3.142 m) from floodmark; minimum daily, 0.40 ft^3/s (0.011 m^3/s) Jan. 28, 29, 1949.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 177 ft^3/s (5.01 m^3/s) Aug. 16, gage height, 2.86 ft (0.872 m); minimum daily during period of operation, 7.9 ft^3/s (0.22 m^3/s) May 3-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							15	8.4	56	45	48	94
2							15	8.4	58	56	50	95
3							16	7.9	58	64	53	89
4							24	7.9	59	64	47	82
5							27	7.9	55	65	43	81
6							21	11	54	61	42	80
7							15	36	58	59	43	84
8							14	36	61	56	45	82
9							13	36	61	53	51	85
10							12	35	58	50	53	89
11							12	39	55	47	65	86
12							12	46	55	44	60	87
13							12	43	58	41	61	87
14							12	36	54	38	67	85
15							12	37	57	36	114	80
16							12	37	65	39	152	81
17							12	15	69	43	106	85
18							11	13	59	44	92	86
19							11	13	58	53	95	99
20							11	13	58	51	95	103
21							11	11	57	49	89	91
22							10	27	58	49	90	90
23							10	38	57	50	89	87
24							9.4	40	57	53	89	81
25							8.9	39	50	57	81	81
26							8.9	39	60	55	84	80
27							8.9	38	57	59	87	69
28							8.9	43	58	47	82	59
29							8.4	45	56	49	81	58
30							8.4	56	48	47	84	48
31							---	54	---	48	96	---
TOTAL							381.8	916.5	1724	1572	2334	2484
MEAN							12.7	29.6	57.5	50.7	75.3	82.8
MAX							27	56	69	65	152	103
MIN							8.4	7.9	48	36	42	48
AC-FT							757	1820	3420	3120	4630	4930

06673500 KATZER DRAIN NEAR HENRY, NE

LOCATION.--Lat 41°58'45", long 104°04'15", in NW¼NW¼SW¼ sec.10, T.23 N., R.60 W., Goshen County, WY, Hydrologic Unit 10180009, on left bank 0.2 mi (0.3 km) upstream from bridge on county road, 0.8 mi (1.3 km) upstream from mouth, and 1.7 mi (2.7 km) southwest of Henry.

DRAINAGE AREA.--45.9 mi^2 (118.9 km^2), of which 8.2 mi^2 (21.2 km^2) is probably noncontributing.

PERIOD OF RECORD.--May 1928 to current year (no winter records prior to 1932 and since 1971).

REVISED RECORDS.--WSP 1710: Drainage area. WDR WY-77-1: 1975(M), 1976 (M).

GAGE.--Water-stage recorder. Altitude of gage is 4,040 ft (1,231 m), from topographic map. See WSP 1918 for history of changes prior to Dec. 1, 1950. Dec. 1, 1950, to Sept. 30, 1969, at site 1.0 mi (1.6 km) upstream at different datum. Oct. 1, 1969, to Mar. 31, 1974, at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Records good. Flow is mainly return water from land irrigated by Fort Laramie Canal.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--40 years (water years 1932-71), 19.6 ft^3/s (0.555 m^3/s), 14,200 acre-ft/yr (17.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,460 ft^3/s (41.3 m^3/s) June 11, 1977, gage height, 8.56 ft (2.609 m), from rating curve extended above 130 ft^3/s (3.68 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft^3/s (0.014 m^3/s) Jan. 14, 1937.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 379 ft^3/s (10.7 m^3/s) May 23, gage height, 3.82 ft (1.164 m); minimum daily during period of operation, 6.4 ft^3/s (0.18 m^3/s) May 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							12	7.7	40	30	37	67
2							12	7.4	40	40	36	66
3							15	7.4	38	50	35	67
4							17	7.0	40	59	39	64
5							19	6.7	32	52	46	63
6							27	8.5	26	47	44	60
7							17	7.4	26	44	39	58
8							13	6.4	27	39	40	57
9							12	6.4	31	38	44	55
10							12	6.4	26	36	48	59
11							11	8.1	32	45	49	60
12							10	13	33	43	44	58
13							10	12	32	58	45	61
14							10	9.6	28	52	56	59
15							9.6	10	33	44	87	65
16							9.2	11	41	37	96	61
17							8.9	10	40	37	76	60
18							8.9	9.2	36	39	71	59
19							8.9	8.9	40	42	69	68
20							8.9	8.9	48	44	70	71
21							8.9	18	45	43	67	74
22							8.5	39	45	41	67	75
23							8.9	73	49	39	65	64
24							8.5	91	48	38	66	62
25							8.1	41	44	41	63	66
26							8.1	31	39	44	60	68
27							8.1	37	42	48	61	61
28							8.1	37	44	47	60	51
29							7.7	42	46	41	59	34
30							7.7	40	39	40	55	18
31							---	40	---	37	65	---
TOTAL							334.0	661.0	1130	1335	1759	1811
MEAN							11.1	21.3	37.7	43.1	56.7	60.4
MAX							27	91	49	59	96	75
MIN							7.7	6.4	26	30	35	18
AC-FT							662	1310	2240	2650	3490	3590

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 41°59'25", long 104°02'57", in SW¼NE¼SE¼ sec.4, T.23 N., R.58 W., Scottsbluff County, NE, Hydrologic Unit 10180009, on right bank 650 ft (198 m) upstream from bridge on NE State Highway 86, 700 ft (213 m) downstream from Wyoming-Nebraska State line, and 0.5 mi (0.8 km) south of Henry, NE.

DRAINAGE AREA.--22,218 mi^2 (57,545 km^2), of which 1,929 mi^2 (4,996 km^2), is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1929 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,021.35 ft (1,225.707 m), National Geodetic Vertical Datum of 1929. Prior to Nov. 6, 1929, nonrecording gage and Nov. 6, 1929, to Sept. 30, 1959, water-stage recorder at site 0.5 mi (0.8 km) upstream at datum 4.42 ft (1.347 m) higher. Oct. 7, 1959 to Feb. 22, 1972, water-stage recorder at site 0.5 mi (0.8 km) upstream at datum 3.42 ft (1.042 m) higher.

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs, transbasin diversions, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Gering-Mitchell Canal diverts from right bank 0.8 mi (1.3 km) upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 17,900 ft^3/s (507 m^3/s) June 2, 1929, gage height 7.04 ft (2.146 m), site and datum then in use; minimum daily, 13 ft^3/s (0.37 m^3/s) May 12, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,470 ft^3/s (98.3 m^3/s) May 3, gage height, 4.93 ft (1.503 m); minimum daily, 226 ft^3/s (6.40 m^3/s) Jan. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	294	342	265	272	230	374	240	2880	2140	1520	1310	986
2	306	335	265	276	240	366	243	3040	2150	1650	1390	986
3	294	335	265	273	265	363	245	3360	2080	1850	1400	941
4	319	329	265	270	303	366	248	3320	1850	1680	1310	833
5	398	322	273	270	300	382	253	3370	1700	1660	1250	788
6	419	319	276	259	297	386	260	3370	1590	1830	1300	730
7	428	319	276	248	294	370	274	3230	1840	1920	1340	698
8	428	319	282	240	291	366	325	3200	1970	1650	1380	669
9	455	319	291	242	291	363	738	3200	2210	1460	1450	676
10	424	319	297	250	288	352	824	3120	2200	1410	1500	706
11	428	313	265	270	288	342	986	2530	1920	1370	1490	690
12	419	309	260	279	291	329	1040	1660	1530	1430	1510	662
13	406	306	265	297	291	313	1070	1430	1510	1610	1480	669
14	394	297	273	294	294	300	1090	1380	1520	1800	1480	648
15	378	294	267	288	294	288	1510	1520	1530	1700	1650	627
16	366	285	273	282	291	279	2140	2010	1480	1490	1840	641
17	363	285	262	270	294	270	2290	2480	1540	1440	1600	655
18	360	285	265	273	300	267	2370	2970	1830	1420	1580	655
19	363	285	273	270	322	259	2390	2920	1920	1440	1590	683
20	374	294	270	270	390	262	2510	2780	2130	1390	1380	738
21	374	291	273	260	527	265	2570	2890	2190	1400	1260	714
22	356	273	285	266	516	265	2620	3100	2020	1390	1240	683
23	352	273	282	279	465	253	2670	2970	1650	1370	1170	683
24	349	273	285	285	442	237	2850	2950	1350	1330	1130	683
25	342	267	285	282	437	229	2860	2790	1020	1360	1130	683
26	342	267	288	260	442	235	2920	2780	995	1340	1130	669
27	346	267	291	240	442	244	2890	2880	1140	1300	1110	596
28	342	264	288	232	424	246	2900	2860	1430	1300	1070	527
29	352	263	279	228	406	240	2890	2460	1640	1290	986	538
30	352	264	270	227	---	232	2900	2200	1600	1220	959	544
31	349	---	270	226	---	232	---	2100	---	1280	995	---
TOTAL	11472	8913	8524	8178	9955	9275	49116	83750	51675	46300	41410	21001
MEAN	370	297	275	264	343	299	1637	2702	1723	1494	1336	700
MAX	455	342	297	297	527	386	2920	3370	2210	1920	1840	986
MIN	294	263	260	226	230	229	240	1380	995	1220	959	527
AC-FT	22750	17680	16910	16220	19750	18400	97420	166100	102500	91840	82140	41660

CAL YR 1979 TOTAL 188607 MEAN 517 MAX 1590 MIN 98 AC-FT 374100
WTR YR 1980 TOTAL 349569 MEAN 955 MAX 3370 MIN 226 AC-FT 693400

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
OCT										
09...	1200	455	850	8.1	11.0	5	8.8	84	280	67
31...	1500	349	--	--	--	--	--	--	--	--
NOV										
05...	1120	319	940	8.1	5.5	5	9.3	100	260	6
DEC										
03...	1145	265	1000	8.1	6.0	6	9.8	92	290	44
10...	1115	291	--	--	--	--	--	--	--	--
JAN										
07...	1245	248	1000	8.0	.5	8	12.6	84	300	32
FEB										
05...	1500	303	--	--	--	--	--	--	--	--
19...	1000	303	890	8.0	5.5	10	11.0	190	310	47
MAR										
03...	1210	360	--	--	--	--	--	--	--	--
APR										
14...	1050	1080	800	8.1	9.0	15	10.4	52	280	91
22...	1645	2600	--	--	--	--	--	--	--	--
MAY										
08...	1015	3240	660	8.2	12.0	20	8.8	60	220	64
JUN										
09...	1330	2240	645	8.2	18.5	15	8.4	86	230	82
JUL										
07...	1430	1940	675	8.2	22.5	25	8.3	76	220	81
AUG										
04...	1600	1290	680	8.1	21.0	40	8.3	120	240	84
SEP										
09...	1600	655	720	8.1	17.0	20	8.6	130	260	80

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT										
09...	81	20	77	2.0	7.8	260	0	210	220	18
31...	--	--	--	--	--	--	--	--	--	--
NOV										
05...	70	20	100	2.7	8.0	310	0	250	200	20
DEC										
03...	85	19	110	2.8	9.5	300	0	250	240	22
10...	--	--	--	--	--	--	--	--	--	--
JAN										
07...	90	19	110	2.8	9.3	330	0	270	250	4.5
FEB										
05...	--	--	--	--	--	--	--	--	--	--
19...	84	23	95	2.4	8.0	320	0	260	240	12
MAR										
03...	--	--	--	--	--	--	--	--	--	--
APR										
14...	75	22	62	1.6	6.0	230	0	190	200	16
22...	--	--	--	--	--	--	--	--	--	--
MAY										
08...	79	5.7	49	1.4	3.8	190	0	160	150	12
JUN										
09...	56	23	53	1.5	4.5	180	0	150	180	13
JUL										
07...	57	18	45	1.3	3.8	170	0	140	160	10
AUG										
04...	69	16	47	1.3	5.3	190	0	160	170	13
SEP										
09...	71	19	69	1.9	5.4	220	0	180	200	15

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY)
OCT									
09...	.5	20	576	.78	708	1.4	.130	--	--
31...	--	--	--	--	--	--	--	71	67
NOV									
05...	.5	23	593	.81	511	1.9	.020	--	--
DEC									
03...	.6	26	664	.90	475	2.2	.080	--	--
10...	--	--	--	--	--	--	--	110	86
JAN									
07...	.5	29	685	.93	459	2.2	.170	--	--
FEB									
05...	--	--	--	--	--	--	--	103	84
19...	.6	27	657	.89	538	2.2	.120	--	--
MAR									
03...	--	--	--	--	--	--	--	94	91
APR									
14...	.5	3.2	500	.68	1460	1.1	.110	--	--
22...	--	--	--	--	--	--	--	194	1360
MAY									
08...	.8	8.9	400	.54	3500	.24	.040	225	1970
JUN									
09...	.7	9.0	430	.58	2600	.20	.050	111	671
JUL									
07...	.5	7.1	380	.52	1990	.17	.050	160	838
AUG									
04...	.5	9.3	420	.57	1460	.46	.130	150	522
SEP									
09...	.5	11	502	.68	888	.76	.040	75	133

06679500 NORTH PLATTE RIVER AT MITCHELL, NE

LOCATION.--Lat 41°55'38", long 103°48'48", in NE¼NE¼ sec.33, T.33 N., R.56 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank of main channel on downstream side of bridge on State Highway 29, 0.5 mi (0.8 km) south of Mitchell.

DRAINAGE AREA.--24,300 mi^2 (62,900 km^2), approximately, of which about 2,000 m^2 (5,180 km^2) is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1901 to September 1910, May to December 1911, February 1912 to July 1913 (gage heights only), May 1916 to October 1918 (irrigation seasons only), May 1920 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,929.3 ft (1,197.65 m), National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to May 27, 1960. May 27, 1960, to Aug. 24, 1971, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,500 ft^3/s (779 m^3/s) June 3, 1909, gage height, 6.45 ft (1.966 m), datum then in use, from graph based on gage readings, from rating curve extended above 17,000 ft^3/s (481 m^3/s); minimum daily observed, 25 ft^3/s (0.71 m^3/s) Sept. 25-29, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,400 ft^3/s (125 m^3/s) May 24, gage height, 6.86 ft (2.091 m); minimum daily, 284 ft^3/s (8.04 m^3/s) July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	696	711	535	522	495	702	567	2890	1890	547	356	450
2	686	700	535	540	551	691	572	2970	1880	596	422	466
3	656	692	548	544	576	686	580	3140	1820	748	462	454
4	647	690	557	540	576	683	590	3200	1750	758	398	475
5	741	681	590	540	573	664	622	3240	1660	587	330	446
6	814	676	581	520	567	673	679	3260	1400	656	295	434
7	835	681	594	470	562	670	706	3060	1460	714	309	426
8	835	676	594	478	539	666	652	2710	1560	666	320	426
9	868	664	599	465	526	658	832	2720	1680	491	338	414
10	869	653	613	491	526	647	1070	2700	1730	430	371	426
11	845	641	594	491	517	636	1180	2510	1630	375	379	442
12	854	626	558	513	513	626	1280	1910	1360	352	386	442
13	837	622	553	553	517	605	1340	1920	1270	367	367	434
14	824	614	553	562	517	587	1390	1760	1290	491	345	418
15	804	609	548	553	504	576	1490	1700	1270	530	394	410
16	787	587	506	548	504	559	1950	1950	1270	500	610	414
17	781	581	510	540	491	545	2190	2230	1280	487	610	418
18	772	570	511	535	508	542	2310	2600	1430	450	539	398
19	763	556	517	531	562	542	2380	2650	1470	442	543	379
20	762	576	508	517	757	541	2440	2290	1650	450	513	470
21	796	533	517	513	1040	546	2490	2220	1670	418	434	513
22	767	536	531	522	1080	544	2540	2240	1620	383	398	475
23	753	555	544	526	904	536	2590	2360	1350	364	402	462
24	749	548	540	544	837	516	2790	3440	1080	349	402	483
25	740	553	548	553	786	505	2870	2540	851	349	390	552
26	732	548	548	513	773	505	2920	2460	676	367	383	642
27	724	540	558	500	776	503	2960	2500	613	356	394	719
28	713	526	564	491	758	525	3000	2450	571	364	422	798
29	726	513	540	482	743	536	2940	2270	522	341	426	854
30	744	535	517	478	---	545	2920	1970	615	309	434	934
31	727	---	513	482	---	550	---	1900	---	284	438	---
TOTAL	23847	18193	17024	16057	18578	18310	52840	77760	40318	14521	12810	15074
MEAN	769	606	549	518	641	591	1761	2508	1344	468	413	502
MAX	869	711	613	562	1080	702	3000	3440	1890	758	610	934
MIN	647	513	506	465	491	503	567	1700	522	284	295	379
AC-FT	47300	36090	33770	31850	36850	36320	104800	154200	79970	28800	25410	29900

CAL YR 1979 TOTAL 183183 MEAN 502 MAX 1260 MIN 202 AC-FT 363300
WTR YR 1980 TOTAL 325332 MEAN 889 MAX 3440 MIN 284 AC-FT 645300

06679500 NORTH PLATTE RIVER AT MITCHELL, NE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE, WATER (DEG C)	PCB TOTAL (UG/L)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL (UG/L)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL (UG/L)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN 09...	1045	1540	17.0	.00	0	.0	.0	.00	.2	.0	1

DATE	DDD, TOTAL (UG/L)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL (UG/L)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL (UG/L)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL (UG/L)	DIELDRIN TOTAL (UG/L)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL (UG/L)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN 09...	.00	.8	.00	3.8	.00	.8	.00	.00	1.1	.00	.0

DATE	ENDRIN, TOTAL (UG/L)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL (UG/L)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL (UG/L)
JUN 09...	.00	.1	.00	.00	.0	.00	.0	.00	.0	.00

DATE	METHOXYCHLOR, TOTAL (UG/L)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL (UG/L)	PERTHANE TOTAL (UG/L)	PERTHANE IN BOTTOM MATERIL (UG/KG)	TOXAPHENE, TOTAL (UG/L)
JUN 09...	.00	.0	.00	.00	.00	.0	.00	.00	.00	0

DATE	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN 09...	0	.00	.03	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
JUN 09...	.00	.0	.01	.0

TRANSBASIN DIVERSIONS FROM NORTH PLATTE RIVER BASIN TO CACHE LA POUDRE RIVER BASIN IN COLORADO

The following seven diversions, which are equipped with water-stage recorders, divert water from tributaries of the North Platte River to the Cache la Poudre River or its tributaries. Records furnished by Colorado Division of Water Resources.

06745500 Cameron Pass ditch diverts water from tributaries of Michigan River in sec.10, T.6 N., R.76 W., to Joe Wright Creek (tributary to Cache la Poudre River) in sec.2, T.6 N., R.76 W.

06746000 Michigan ditch diverts water from Michigan River, headgate in sec.12, T.6 N., R.76 W., and many small tributaries and Agnes Creek (tributary to Michigan River), headgate in sec.15, T.6 N., R.76 W., to Joe Wright Creek (tributary to Cache la Poudre River) in sec.2, T.6 N., R.76 W.

06746500 Skyline ditch diverts water from West Branch Laramie River (tributary to Laramie River), headgate in sec.14, T.8 N., R.76 W., to Chambers Lake (tributary to Cache la Poudre River) in sec.31, T.8 N., R.75 W.

06747000 Laramie-Poudre tunnel diverts water from Laramie River in sec.7, T.8 N., R.75 W., and Rawah Creek (tributary to Laramie River) in sec.14, T.9 N., R.76 W., to Cache la Poudre River in sec.9, T.8 N., R.75 W.

06747200 Bob Creek ditch diverts water from Nunn Creek (tributary to Laramie River) in sec.9, T.9 N., R.75 W., to Roaring Creek (tributary to Cache la Poudre River) in sec.11, T.9 N., R.75 W.

06750000 Columbine ditch diverts water from Nunn Creek (tributary to Laramie River) in sec.3, T.9 N., R.75 W., to North Fork Cache la Poudre River (tributary to Cache la Poudre River) in sec.25, T.10 N., R.75 W.

06750500 Wilson supply ditch diverts water from Sand Creek in sec.22, T.11 N., R.75 W., and at times includes water diverted from tributaries of Deadman Creek in sec.9, T.10 N., R.75 W. Diversion is from the Laramie River basin to Sheep Creek (tributary to North Fork Cache la Poudre River) in sec.23, T.11 N., R.75 W., in the Cache la Poudre River basin. Records represent total flow diverted from the Laramie River basin by Wilson supply ditch.

REVISED RECORDS.--WSP 1310: 1945, 1947.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

Month	06745500 Cameron Pass ditch	06746000 Michigan ditch	06746500 Skyline ditch	06747000 Laramie-Poudre tunnel	06747200 Bob Creek ditch	06750000 Columbine ditch	06750500 Wilson supply ditch
October	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0
January	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0
June	112	486	0	4,650	0	0	0
July	42	479	205	7,330	0	0	213
August	0	139	0	2,570	0	0	74
September	0	11	0	1,320	0	0	0
Water year 1980	154	1,115	205	15,870	0	0	287

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station Name	Location	Drainage area (sq mi)	Period of Record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Yellowstone River basin					
06218700	Wagon Gulch near Dubois, WY	Lat 43°34'42", long 109°44'13", in NE¼NE¼ sec.30, T.42 N., R.107 W., Fremont County, 600 ft upstream from U.S. Highways 26 and 287 and 6.2 miles northwest of Dubois. Prior to Oct. 1, 1970, at site 600 ft downstream at different datum.	4.89	1961-80	9-13-80	14.82	40
06223800	Wind River tributary No. 2 near Crowheart, WY	Lat 43°14'18", long 109°01'52", in SE¼NE¼ sec.18, T.3 N., R.2 W., Fremont County, Wind River Indian Reservation, at culvert on U.S. Highway 26 and 9.6 miles southeast of Crowheart.	3.16	1961-80	1980		(a)
06226200	Little Dry Creek near Crowheart, WY	Lat 43°32'10", long 109°05'20", in SW¼ sec.35, T.7 N., R.3 W., Fremont County, Wind River Indian Reservation, 800 ft upstream from Blue Draw Road and 16.5 miles north of Crowheart. Prior to June 16, 1965, at site 800 ft downstream at different datum.	10.5	1961-80	10-15-79	3.52	(†)
06226300	Dry Creek near Crowheart, WY	Lat 43°23'40", long 109°02'25", in NW¼SE¼ sec.19, T.5 N., R.2 W., Fremont County, Wind River Indian Reservation, on left bank 9.7 miles northeast of Crowheart.	97.9	1959, 1961-80	5-12-80	5.92	142
06229700	Norkok Meadows Creek near Fort Washakie, WY	Lat 43°04'56", long 108°54'12", in NE¼NW¼ sec.8, T.1 N., R.1 W., Fremont County, Wind River Indian Reservation, 100 ft downstream from culvert on U.S. Highway 287 and 5.5 miles north of Fort Washakie.	15.4	1965-80	4- 8-80	5.41	1.7
06229800	Sand Draw near Fort Washakie, WY	Lat 43°03'42", long 108°54'44", in NE¼SE¼ sec.18, T.1 N., R.1 W., Fremont County, Wind River Indian Reservation, at culvert on U.S. Highway 287 and 4.3 miles north of Fort Washakie.	.99	1961-80	4- 5-80	5.38	30
06229900	Trout Creek near Fort Washakie, WY	Lat 42°57'04", long 108°56'54", in NW¼NW¼ sec.25, T.1 S., R.2 W., Fremont County, Wind River Indian Reservation, 100 ft upstream from Blue Trail and 5.0 miles southwest of Fort Washakie. Prior to Oct. 1, 1968, at site 100 ft downstream at same datum.	16.1	1961-68, 1970-80	5-23-80	6.25	290
06233360	Monument Draw at lower station, near Hudson, WY	Lat 42°49'15", long 108°34'59", in SW¼NW¼ sec.21, T.33 N., R.98 W., Fremont County, on left bank 225 ft upstream from dirt road crossing and 5.8 miles south of Hudson.	8.38	1965-80	5-10-80	2.94	94
06234800	Bobcat Draw near Sand Draw, WY	Lat 42°49'34", long 108°13'18", in NW¼NW¼ sec.21, T.33 N., R.95 W., Fremont County, about 500 ft upstream from culvert on Sand Draw Road, 0.3 mile upstream from mouth, and 5.0 miles north of Sand Draw.	b2.89	1969, 1971-80	5-10-80	5.17	29

See footnotes at end of table, 568.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (sq mi)	Period of Record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Yellowstone River basin--Continued					
06236000	Kirby Draw near Riverton, WY	Lat 43°05'29", long 108°16'06", in NW¼SE¼ sec.3, T.1 N., R.5 E., Fremont County, Wind River Indian Reservation, on left bank 1.5 miles upstream from mouth and 7.0 miles northeast of Riverton.	129	1951-53, 1961-80	5-10-80	3.34	142
06238760	West Fork Dry Cheyenne Creek at upper station, near Riverton, WY	Lat 42°57'12", long 108°06'16", in NE¼NW¼ sec.4, T.34 N., R.94 W., Fremont County, on left bank 45 ft upstream from dim trail, 2.2 miles south of Ohio Road, and about 14 miles east of Riverton.	.69	1965-80	5-10-80	1.35	16
06255300	Poison Creek tributary near Shoshoni, WY	Lat 43°13'26", long 107°59'59", in NW¼NE¼ sec.33, T.38 N., R.93 W., Fremont County, at culvert on old U.S. Highways 20 and 26 and 5.2 miles east of Shoshoni.	.39	1959-80	1980		(a)
06256600	Red Creek near Arminto, WY	Lat 43°14'44", long 107°19'38", in SW¼SE¼ sec.19, T.38 N., R.87 W., Natrona County, at culvert on Lost Cabin-Arminto Road and 5.9 miles northwest of Arminto.	7.15	1963-80	8-15-80	c4.14	90
06256700	South Bridger Creek near Lysite, WY	Lat 43°26'40", long 107°45'22", in SE¼SE¼ sec.9, T.40 N., R.91 W., Fremont County, 600 ft downstream from bridge on Bridger Creek Road and 12.5 miles northwest of Lysite. Prior to Oct. 1, 1968, at site 600 ft upstream at different datum.	10.0	1960-80	4-22-80	4.78	3
06257300	Shotgun Creek tributary near Pavillion, WY	Lat 43°27'35", long 108°44'37", in SW¼SE¼ sec.27, T.6 N., R.1 E., Fremont County, Wind River Indian Reservation, at bridge on dirt road, about 1 mile west of Shotgun Butte, and 15.2 miles north of Pavillion.	2.57	1961-80	7-25-80	6.53	(†)
06265200	Sand Draw near Thermopolis, WY	Lat 43°48'30", long 108°28'00", in SW¼ sec.2, T.44 N., R.97 W., Hot Springs County, at culvert on State Highway 120 and about 17 miles northwest of Thermopolis.	6.33	1960-80	6-16-80	3.61	(†)
06265600	Tie Down Gulch near Worland, WY	Lat 43°53'15", long 108°07'45", in NW¼NW¼ sec.10, T.45 N., R.94 W., Washakie County, at culvert on U.S. Highway 20 and 12.3 miles southwest of Worland.	1.78	1961-80	9-16-80	5.51	78
06266460	Murphy Draw near Grass Creek, WY	Lat 44°00'52", long 108°30'08", in SE¼NW¼ sec.28, T.47 N., R.97 W., Hot Springs County, on left bank 0.4 mile upstream from State Secondary Highway 2200 and 8.9 miles northeast of Grass Creek.	2.32	1965-80	6- 6-80	2.78	33
06267260	North Prong East Fork Nowater Creek near Worland, WY	Lat 43°57', long 107°49', in SW¼SE¼ sec.18, T.46 N., R.91 W., Washakie County, on right bank 0.3 mile upstream from South Fork-Sand Creek Oil Field Road and 8.7 miles southeast of Worland.	3.77	1964-80	2-26-80	1.80	17
06269750	Nowood River tributary near Ten Sleep, WY	Lat 43°58'30", long 107°23'20", in NE¼NE¼ sec.11, T.46 N., R.88 W., Washakie County, at culvert on paved county road and 5.1 miles southeast of Ten Sleep.	.42	1960-80	1980		(†)

See footnotes at end of table, 568.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (sq mi)	Period of Record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (cfs)
		Yellowstone River basin--Continued					
06274190	Nowood River tributary No. 2 near Basin, WY	Lat 44°16'42", long 107°54'33", in SE¼NE¼ sec.28, T.50 N., R.92 W., Big Horn County, on right bank 0.2 mile upstream from State Secondary Highway 0201, 2.7 miles east of Manderson, and 9.3 miles southeast of Basin.	1.51	1965-80	9-16-80	1.53	36
06274250	Elk Creek near Basin, WY	Lat 44°18'30", long 108°01'50", in NE¼ sec.16, T.50 N., R.93 W., Big Horn County, at bridge on Orchard Bench Road and 5.1 miles south of Basin.	96.9	1959-80	9-16-80	8.15	1,400
06277700	Twentyfour Mile Creek near Emblem, WY	Lat 44°27'32", long 108°36'30", in SE¼SW¼ sec.23, T.52 N., R.98 W., Park County, 300 ft downstream from culvert on U.S. Highways 14 and 20 and 10.0 miles southwest of Emblem.	12.8	1960-80	7-30-80	11.75	33
06277750	Dry Creek tributary near Emblem, WY	Lat 44°27'42", long 108°34'12", in NW¼SW¼ sec.19, T.52 N., R.97 W., Big Horn County, at culvert on U.S. Highways 14 and 20 and 8.8 miles southwest of Emblem.	.65	1960-68, 1970-80	5-25-80	3.19	8
06279020	Red Gulch near Shell, WY	Lat 44°32'04", long 107°50'06", in NE¼NW¼ sec.32, T.53 N., R.91 W., Big Horn County, 0.2 mile downstream from bridge on old section of U.S. Highway 14, 0.3 mile upstream from mouth, and 2.7 miles west of Shell. Prior to Oct. 1, 1971, at site 400 ft upstream at different datum.	47.8	1967, 1970-80	9-16-80	5.53	260
06299900	Slater Creek near Monarch, WY	Lat 44°54'32", long 107°02'49", in SE¼SW¼ sec.18, T.57 N., R.84 W., Sheridan County, 30 ft upstream from bridge on U.S. Highways 14 and 87, 0.2 mile upstream from mouth, and 0.9 mile northwest of Monarch.	18.0	1967-80	5-25-80	56.21	50
06312700	South Fork Powder River near Powder River, WY	Lat 43°02'00", long 107°01'00", in SE¼NW¼ sec.3, T.35 N., R.85 W., Natrona County, 800 ft downstream from bridge on U.S. Highways 20 and 26 and 1.6 miles west of Powder River. Prior to July 11, 1973, at site 800 ft upstream at different datum.	262	1961-80	3-15-80	d7.68	(†)
06312795	Sanchez Creek above reservoir, near Arminto, WY	Lat 43°20'23", long 107°10'48", in NE¼NE¼ sec.20, T.39 N., R.86 W., Natrona County, 0.9 mile upstream from Buffalo Creek Road, 1.0 mile upstream from mouth, and 12.3 miles northeast of Arminto.	5.53	1970-80	8-15-80		*1
06313020	Bobcat Creek near Edgerton, WY	Lat 43°11'55", long 106°05'25", in NW¼NW¼ sec.10, T.37 N., R.77 W., Natrona County, on left bank about 300 ft upstream from jeep road, about 600 ft south of Seven L Ranch Headquarters, and 16.7 miles southeast of Edgerton.	8.29	1965-80	2-18-80	d2.08	27
06313100	Coal Draw near Midwest, WY	Lat 43°27'00", long 106°14'00", in NE¼SE¼ sec.8, T.40 N., R.78 W., Natrona County, at bridge on State Highway 387 and 3.4 miles northeast of Midwest.	11.4	1961-80	7-23-80	10.93	1,430
06313450	North Spring Draw near Sussex, WY	Lat 43°37'49", long 106°24'36", in SE¼SW¼SE¼ sec.1, T.42 N., R.80 W., Johnson County, on left bank 12 ft upstream from culvert on West Sussex-Dugout Oil Field road, 2.1 miles upstream from mouth, and 8 miles southwest of Sussex.	5.21	1980	6-15-80	14.15	692

See footnotes at end of table, 568.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (sq mi)	Period of Record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Yellowstone River basin--Continued					
06313630	Van Houten Draw near Buffalo, WY	Lat 44°10'40", long 106°07'25", in NE¼ sec.33, T.49 N., R.77 W., Johnson County, about 300 ft upstream from dirt road, 0.4 mile upstream from mouth, and 31 miles southeast of Buffalo.	10.8	1971-80	6-19-80	8.20	170
06316700	Coal Draw near Buffalo, WY (formerly Powder River tributary near Buffalo, WY)	Lat 44°30', long 106°08', in NE¼NW¼ sec.9, T.52 N., R.77 W., Johnson County, on right bank 0.5 mile upstream from bridge on Crazy Woman Creek-Arvada Road and about 30 miles northeast of Buffalo.	1.64	1965-79	8-15-80	2.12	101
06317050	Rucker Draw near Spotted Horse, WY	Lat 44°43'10", long 105°53'10", in NW¼NE¼ sec.28, T.55 N., R.75 W., Campbell County, at culvert on U.S. Highways 14 and 16 and 2.7 miles west of Spotted Horse.	3.98	1961-80	8-15-80	7.30	e6
06319100	Bull Creek near Buffalo, WY	Lat 44°16'38", long 106°44'42", in SW¼NE¼ sec.29, T.50 N., R.82 W., Johnson County, 3.5 miles upstream from bridge on U.S. Highway 87 and 5.5 miles southwest of Buffalo.	10.8	1969-80	6- -80		<1
06324800	Little Powder River tributary near Gillette, WY	Lat 44°26'50", long 105°27'40", in NE¼ sec.36, T.52 N., R.72 W., Campbell County, 145 ft upstream from culvert on State Secondary Highway 0301 and 10.6 miles north of Gillette. Prior to Oct. 1, 1969, at site 125 ft downstream at same datum.	.81	1960-80	6-19-80	7.38	7
06324900	Cedar Draw near Gillette, WY	Lat 44°31'00", long 105°26'40", in NW¼ sec.6, T.52 N., R.71 W., Campbell County, at culvert on State Secondary Highway 0301 and 15.3 miles north of Gillette.	3.45	1959-80	6-19-80	9.04	462
06324910	Cow Creek tributary near Weston, WY	Lat 44°32'35", long 105°21'40", in SE¼ sec.26, T.53 N., R.71 W., Campbell County, at culvert on dirt road, about 0.4 mile upstream from mouth, and about 6.6 miles south of Weston.	.72	1971-80	6-19-80	9.77	250
		Cheyenne River basin					
06379600	Box Creek near Bill, WY	Lat 43°06'20", long 105°15'35", in SW¼SE¼ sec.9, T.36 N., R.70 W., Converse County, on left bank 12 ft downstream from bridge on State Highway 59 and 8.8 miles south of Bill.	112	1956-58‡, 1959, 1961-80	2-18-80	d5.04	e123
06382200	Pritchard Draw near Lance Creek, WY	Lat 43°12', long 104°41', in SW¼NE¼ sec.8, T.37 N., R.65 W., Niobrara County, on right bank 200 ft upstream from unmaintained road, 4.1 miles west of Lance Creek-Cow Creek Road, and 11.9 miles north of Lance Creek.	g5.1	1964-80	8-16-80	3.70	227
06387500	Turner Creek near Osage, WY	Lat 44°01'10", long 104°30'10", in SW¼SE¼ sec.26, T.47 N., R.64 W., Weston County, at bridge on U.S. Highway 16 and 4.7 miles northwest of Osage. Prior to Oct. 1, 1979, at site about 1 mile upstream at different datum.	47.8	1959-80	5-31-80	10.55	525
06388800	Blacktail Creek tributary near Newcastle, WY	Lat 43°47'53", long 104°10'52", in NE¼NE¼ sec.16, T.44 N., R.61 W., Weston County, at culvert on U.S. Highway 85 and 4.1 miles south of Newcastle.	.25	1960-80	6-19-80	5.43	e10

See footnotes at end of table, 568.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (sq mi)	Period of Record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Cheyenne River basin--Continued					
06426195	Donkey Creek tributary above reservoir, near Gillette, WY	Lat 44°16'57", long 105°25'38", in NW¼SW¼ sec.29, T.50 N., R.71 W., Campbell County, 0.1 mile upstream from culvert on U.S. Highways 14 and 16, 0.2 mile upstream from mouth, and 3.8 miles east of Gillette.	0.2	1970-80	2-18-80	d15.53	e0.5
06427700	Inyan Kara Creek near Upton, WY	Lat 44°13'45", long 104°26'45", in S½ sec.17, T.49 N., R.63 W., Crook County, at bridge on State Highway 116 and 13.0 miles northeast of Upton.	96.5	1959-80	2-18-80	d6.20	e30
06428100	Belle Fourche River tributary No. 2 near Hulett, WY	Lat 44°41'35", long 104°32'10", in SW¼SW¼ sec.3, T.54 N., R.64 W., Crook County, at culvert on State Highway 24 and 3.2 miles east of Hulett.	10.2	1962-80	6-18-80	2.33	32
06429300	Ogden Creek near Sundance, WY	Lat 44°27'30", long 104°21'10", in SW¼SW¼ sec.30, T.52 N., R.62 W., Crook County, on left bank 225 ft upstream from bridge on Sundance-Farrall Road and 3.9 miles northeast of Sundance. Prior to 1967, station Nos. 06429299 and 06429300 published as separate stations.	8.42	1962-80	1980		(a)
		Platte River basin					
06629150	Coal Bank Draw tributary near Walcott, WY	Lat 41°44'05", long 106°43'18", in SE¼NW¼ sec.3, T.20 N., R.83 W., Carbon County, on right bank 60 ft downstream from dirt road and 6.6 miles southeast of Walcott.	3.65	1962-80	4-15-80	6.93	69
06629200	Coal Bank Draw tributary No. 2 near Walcott, WY	Lat 41°44'19", long 106°43'36", in NE¼NE¼ sec.4, T.20 N., R.83 W., Carbon County, on left bank 6.3 miles southeast of Walcott.	2.41	1962-80	4-15-80	6.62	47
06629800	Coal Creek near Rawlins, WY	Lat 41°45'44", long 107°16'07", in NW¼SW¼ sec.30, T.21 N., R.87 W., Carbon County, 0.2 mile upstream from State Secondary Highway 0402 and 2 miles southwest of Rawlins. Prior to June 25, 1970, at site 0.2 mile downstream at different datum.	7.32	1959-80	3-21-80	16.28	e30
06630200	Big Ditch tributary near Hanna, WY	Lat 41°51'45", long 106°31'35", in SE¼ sec.21, T.22 N., R.81 W., Carbon County, at culvert on U.S. Highway 30 and 2 miles southeast of Hanna.	7.42	1959-80	4- -80 4-15-80	d6.76 5.08	 45
06631150	Third Sand Creek near Medicine Bow, WY	Lat 41°45', long 106°19', in SE¼SE¼ sec.29, T.21 N., R.79 W., Carbon County, on right bank 60 ft upstream from bridge on Medicine Bow-Elk Mountain Road and 11.0 miles southwest of Medicine Bow.	10.8	1965-80	8-25-80	2.26	103
06634200	Sheep Creek near Marshall, WY	Lat 42°16'48", long 105°53'06", in NW¼SW¼ sec.30, T.27 N., R.75 W., Albany County, 500 ft downstream from culverts on Marshall Road and 2.4 miles southwest of Marshall. Prior to Oct. 1, 1969, at site 500 ft upstream at different datum.	61.0	1961-80	4-19-80	6.47	540
06634300	Sheep Creek near Medicine Bow, WY	Lat 42°07'48", long 106°00'19", in NW¼NW¼ sec.19, T.25 N., R.76 W., Albany County, at bridge on Marshall Road and 19.5 miles northeast of Medicine Bow.	174	1961-80	5-12-80	7.45	455

See footnotes at end of table, 568.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (sq mi)	Period of Record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Platte River basin--Continued					
06634910	Medicine Bow River tributary near Hanna, WY	Lat 42°00'32", long 106°29'32", in SE¼NW¼ sec.35, T.24 N., R.81 W., Carbon County, on left bank 0.2 mile upstream from dirt road, 1.0 mile east of North Road, and 10.2 miles northeast of Hanna.	3.01	1965-80	3-15-80	0.89	18
06637550	Sweetwater River near South Pass City, WY	Lat 44°22'30", long 108°52'56", in NW¼NW¼ sec.28, T.28 N., R.101 W., Fremont County, on left bank 100 ft downstream from small tributary, 0.8 mile downstream from Fog Gulch, 1.2 miles downstream from State Highway 28, and 7.6 miles southwest of South Pass City.	177	1958-73[‡], 1974-80	4-22-80 4-22-80	d11.49 8.64	1,720
06638300	West Fork Crooks Creek near Jeffrey City, WY	Lat 42°20'56", long 107°51'45", in SE¼SW¼ sec.31, T.28 N., R.92 W., Fremont County, at culvert on dirt road and 10.1 miles south of Jeffrey City.	11.6	1961-80	4-23-80	4.71	49
06638350	Coal Creek near Muddy Gap, WY	Lat 42°20'23", long 107°28'02", in NE¼SE¼ sec.4, T.27 N., R.89 W., Carbon County, 500 ft upstream from culvert on U.S. Highway 287 and 1.0 mile southwest of Muddy Gap. Prior to Oct. 1, 1970, at site 500 ft downstream at different datum.	6.08	1961-80	5-12-80	14.70	34
06641400	Bear Springs Creek near Alcova, WY	Lat 42°31'57", long 106°41'56", in SE¼SE¼ sec.30, T.30 N., R.82 W., Natrona County, 250 ft upstream from culvert on Kortes Road and 1.6 miles southeast of Alcova. Prior to Oct. 1, 1970, at site 250 ft downstream at same datum.	9.33	1960-80	2-19-80	d12.51	e49
06642700	Lawn Creek near Alcova, WY	Lat 42°29'21", long 106°27'28", in SW¼SW¼ sec.8, T.29 N., R.80 W., Natrona County, at bridge on State Highway 487 and 13.9 miles southeast of Alcova.	11.5	1961-80	2-19-80	5.49	f61
06642760	Stinking Creek near Alcova, WY	Lat 42°32'31", long 106°27'32", in SE¼NE¼ sec.30, T.30 N., R.80 W., Natrona County, at bridge on Bates Hole Stock Trail and 13.2 miles east of Alcova.	117	1961-80	2-19-80 7- 2-80	d5.34 5.17	260
06643300	Coal Creek near Goose Egg, WY	Lat 42°42'47", long 106°32'13", in SW¼NW¼ sec.27, T.32 N., R.81 W., Natrona County, 0.2 mile upstream from culvert on State Highway 220 and 4.2 miles southwest of Goose Egg. Prior to Oct. 1, 1970, at site 0.2 mile downstream at different datums.	5.39	1960-80	2-19-80	d6.61	e35
06644840	McKenzie Draw tributary near Casper, WY	Lat 43°06'20", long 106°09'05", in SW¼NE¼ sec.12, T.36 N., R.78 W., Natrona County, on right bank about 2,000 ft northwest of Ormsby Road and about 22 miles northeast of Casper.	2.02	1965-80	2-18-80	1.60	14
06646700	East Fork Dry Creek tributary near Glenrock, WY	Lat 42°47'37", long 105°49'40", in SW¼SW¼ sec.26, T.33 N., R.75 W., Converse County, at culvert on Boxelder Road and 4.9 miles southeast of Glenrock.	2.60	1961-80	2-18-80	7.85	123
06648780	Sage Creek tributary near Orpha, WY	Lat 43°00'35", long 105°40'00", in NE¼NW¼ sec.18, T.35 N., R.73 W., Converse County, on right bank 600 ft upstream from culvert on Ross Road and about 14 miles northwest of Orpha.	1.38	1965-80	2-19-80	.64	26

See footnotes at end of table, 568.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (sq mi)	Period of Record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Platte River basin--Continued					
06649900	North Platte River tributary near Douglas, WY	Lat 42°41'22", long 105°23'30", in SW¼NE¼ sec.5, T.31 N., R.71 W., Converse County, at culvert on Esterbrook Road and 4.2 miles south of Douglas.	8.53	1961-80	2-18-80	4.91	87
06651800	Sand Creek near Orin, WY	Lat 42°40'09", long 105°12'44", in NE¼SE¼ sec.11, T.31 N., R.70 W., Converse County, at bridge on old U.S. Highway 87 and 1.6 miles northwest of Orin.	27.8	1955, 1961-80	2-19-80	g8.0	430
06652400	Watkins Draw near Lost Springs, WY (formerly Watson Draw near Lost Springs, WY)	Lat 42°45'20", long 104°57'30", in SW¼SE¼ sec.12, T.32 N., R.68 W., Converse County, 350 ft downstream from culvert on U.S. Highway 20 and 2.1 miles southwest of Lost Springs. Prior to Sept. 30, 1963, at site 250 ft upstream at different datum.	6.95	1960-80	2-18-80	5.04	103
06661580	Sevenmile Creek near Centennial, WY	Lat 41°27'29", long 106°00'36", in NW¼SE¼ sec.11, T.17 N., R.77 W., Albany County, at culvert on county road and 12.7 miles northeast of Centennial.	11.2	1962-80	4- -80 6-19-80	d6.56 6.05	 151
06668040•	Rabbit Creek near Wheatland, WY	Lat 42°12'57", long 105°13'43", in NW¼NE¼ sec.22, T.26 N., R.70 W., Platte County, on right bank 200 ft east of Fletcher Park Road and about 17 miles northwest of Wheatland.	g1.3	1965-80	8-15-80	1.03	76
06670100	Laramie River tributary near Guernsey, WY	Lat 42°09'08", long 104°42'25", in N½SW¼ sec.7, T.25 N., R.65 W., Platte County, at culvert on county road, 0.4 mile upstream from mouth, and 9.4 miles south of Guernsey.	1.97	1971-80	1980	(h)	
06670985	Dry Rawhide Creek near Lingle, WY	Lat 42°18'14", long 104°18'18", in NE¼NE¼ sec.21, T.27 N., R.62 W., Goshen County, 400 ft upstream from culvert on U.S. Highway 85, 0.6 mile upstream from mouth, and 11.5 miles north of Lingle.	20	1969-80	8-15-80	7.67	210
06675300	Horse Creek tributary near Little Bear, WY	Lat 41°27'21", long 104°53'00", in NW¼SW¼ sec.10, T.17 N., R.67 W., Laramie County, at culvert on U.S. Highway 87 and 6.1 miles south of Little Bear. Prior to Sept. 30, 1966, at different datum.	8.16	1961-80	3-21-80	4.70	7
06761900	Lodgepole Creek tributary near Pine Bluffs, WY	Lat 41°15'23", long 104°04'50", in NE¼NE¼ sec.21, T.15 N., R.60 W., Laramie County, at culvert on State Secondary Highway 1104 and 5.0 miles north of Pine Bluffs.	.44	1960-80	12- 5-79	8.55	82
06762600	Lodgepole Creek tributary No. 2 near Albin, WY	Lat 41°19'11", long 104°04'49", in SE¼SE¼ sec.28, T.16 N., R.60 W., Laramie County, at culvert on State Secondary Highway 1104 and 6.8 miles south of Albin.	5.69	1960-80	12- 5-79	8.34	343

Operated as a continuous-record gaging stations.
Discharge not determined.
* About.
a No evidence of flow.
b Of which 0.50 mi^2 is probably noncontributing.
c New site and datum.
d Backwater from ice and snow.
e Estimated.
f May have been exceeded during period of missing record June 18 to Sept. 30, 1980.
g Backwater from roadfill.
h No record for 1980.

Discharge measurements made at miscellaneous sites during water year 1980

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
		Yellowstone River basin				
Middle Creek 06279850	North Fork Shoshone River	Lat 44°29'19", long 110°00'02", at Yellowstone National Park Boundary, 0.1 mi (0.2 km) south of East Entrance Ranger Station and 19 mi (31 km) east of Fishing Bridge, Yellowstone National Park.		1968	9- 3-80	48.7
		Cheyenne River Basin				
Sand Creek	Antelope Creek	Lat 43°21'40", long 105°46'20", in NW¼NW¼ sec.17, T.39 N., R.74 W., Converse County, at bridge on Ross Road, 6.4 mi (10.3 km) north of Bear Creek, and 25 mi (40 km) east of Midwest.		1979	10-22-79	.44
		Platte River Basin				
Hog Park Creek 06623820	Encampment River	Lat 41°02'01", long 106°51'33", in SW¼SE¼ sec.5, T.14 N., R.84 W., Carbon County, about 800 ft (240 m) downstream from Hog Park Creek Dam and 13.2 mi (21.2 km) southwest of Encampment.		1967-79	10-26-79	4.50
					6-24-80	117
					7-15-80	27.2
					8-20-80	.92
					9-24-80	3.11

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

YELLOWSTONE RIVER BASIN

442715110504001 IRON SPRING CREEK ABOVE OLD FAITHFUL SEWAGE LAG, YNP (LAT 44 27 15 LONG 110 50 40)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
SEP 03...	1030	120	8.0	15.0	16	0	5.1	.8	18

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
SEP 03...	2.0	3.3	34	3.7	10	4.4	67	133	.18

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
SEP 03...	.01	.000	.00	.44	2.300	7.1	40	9	2.8

442726110504801 IRON SPRING CREEK BELOW OLD FAITHFUL SEWAGE LAG, YNP (LAT 44 27 26 LONG 110 50 48)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
SEP 03...	1200	178	7.8	18.0	16	0	5.1	.8	30

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
SEP 03...	3.3	5.3	43	5.1	19	4.9	75	171	.23

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
SEP 03...	.01	.000	.00	.72	1.400	4.3	40	10	3.5

YELLOWSTONE RIVER BASIN

443403110224801 YELLOWSTONE RIVER AT FINSHING BRIDGE, YNP (LAT 44 34 03 LONG 110 22 48)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
AUG 29...	0945	380	90	7.9	12.5	24	0	6.0	2.3	9.4	.8	1.8

DATE	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 29...	26	6.3	3.7	.7	10	56	.08	57.5	.00	10	4

443446110223001 YELLOWSTONE RIVER BELOW FISHING BRIDGE, YNP (LAT 44 34 46 LONG 110 22 30)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
AUG 29...	1235	380	90	8.3	13.0	21	0	4.9	2.2	9.3	.9

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG 29...	1.7	27	.1	7.2	10	52	.07	53.4	.00	10	2

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

YELLOWSTONE RIVER BASIN

443835110515001 MADISON RIVER NEAR MADISON JUNCTION, YNP (LAT 44 38 35 LONG 110 51 50)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
SEP 05...	1030	475	7.9	15.0	18	0	6.3	.5	89

DATE	SODIUM AD-SORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
SEP 05...	9.2	10	99	29	69	.7	100	364	.50

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
SEP 05...	.00	.020	.03	.30	.020	.06	80	10	2.7

443832110522801 MADISON RIVER BELOW MADISON JUNCTION, YNP (LAT 44 38 32 LONG 110 52 28)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
SEP 05...	1100	490	7.4	15.5	19	0	6.6	.5	92

DATE	SODIUM AD-SORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
SEP 05...	9.3	9.4	110	28	64	.8	100	368	.50

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
SEP 05...	.00	.020	.03	.30	.020	.06	80	10	3.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

YELLOWSTONE RIVER BASIN

442319110320601 GRANT VILLAGE SEWAGE EFFLUENT, YNP (LAT 44 23 19 LONG 110 32 06)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, WATER (DEG C)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT					
25...	1515	50	13.0	2.6	3.9

442722110504901 OLD FAITHFUL SEWAGE EFFLUENT, YNP (LAT 44 27 22 LONG 110 40 49)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, WATER (DEG C)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT					
25...	1035	270	6.5	11	34

443846110522101 MADISON JUNCTION WASTEWATER, YNP (LAT 44 38 46 LONG 110 42 21)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, WATER (DEG C)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT					
23...	1350	530	6.0	23	52

06289000 LITTLE BIGHORN RIVER AT STATE LINE, NEAR WYOLA, MT (LAT 45 00 25 LONG 107 37 05)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE, WATER (DEG C)
OCT				
19...	1400	81	346	7.0
NOV				
08...	1415	75	332	4.0
DEC				
06...	1500	81	272	4.0
JAN				
16...	1645	70	353	1.5
FEB				
19...	1330	62	345	4.0
MAR				
25...	1300	56	341	3.5
APR				
22...	1410	114	318	7.5
JUN				
04...	1305	304	268	8.0
JUL				
24...	1540	116	310	15.0
AUG				
20...	1350	98	313	10.5
SEP				
17...	1520	87	323	10.5

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

YELLOWSTONE RIVER BASIN

06313700 DEAD HORSE CREEK NEAR BUFFALO, WY (LAT 44 12 54 LONG 106 06 41)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)
APR										
13...	1215	--	5500	7.8	10.5	15	12.0	--	--	--
MAY										
15...	1630	--	>8000	7.8	16.0	10	8.6	--	--	--
JUN										
15...	1010	.09	4250	7.7	17.0	10	5.3	13	1.7	15
AUG										
22...	1010	--	2050	--	17.0	25	8.0	--	--	--
SEP										
24...	1015	--	1800	7.9	10.0	4	8.6	--	--	--

06324790 LITTLE POWDER RIVER AT STATE HIGHWAY 59, NEAR GILLETTE, WY (LAT 44 26 08 LONG 105 17 19)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	TURBIDITY (JTU)	OXYGEN, DISSOLVED (MG/L)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	INVERTEBRATES, BENTHIC WET WT. (G/SQ METER)	INVERTEBRATES, BENTHIC TOTAL (ORG/SQ METER)
APR												
07...	1600	--	2950	8.1	1.0	--	13.3	--	--	--	--	--
08...	1630	.79	1750	--	7.0	3	12.0	--	--	--	--	--
MAY												
13...	1530	.85	3300	7.9	14.5	3	12.0	--	--	--	--	--
14...	1100	--	--	--	--	10	--	--	--	--	--	--
JUN												
17...	1300	.73	1590	--	19.0	1	12.0	14	.1	17	--	--
AUG												
23...	1530	--	--	--	--	--	--	--	--	--	27	12000
23...	1545	2.8	2100	--	21.0	2	8.8	--	--	--	3.2	600
SEP												
26...	0815	.71	950	7.8	8.0	1	7.8	--	--	--	--	--
26...	1215	--	1600	8.0	10.5	--	11.0	--	--	--	--	--
26...	1615	--	1600	8.3	15.0	--	12.4	--	--	--	--	--
26...	2015	--	920	8.1	14.5	--	8.4	--	--	--	--	--
27...	0245	--	840	7.9	10.5	--	7.4	--	--	--	--	--
27...	0655	--	840	7.8	9.5	--	7.2	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

YELLOWSTONE RIVER BASIN

06324790 LITTLE POWDER RIVER AT STATE HIGHWAY 59, NEAR GILLETTE, WY--Continued
(LAT 44 26 08 LONG 105 17 19)

BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1979 TO AUGUST 1980

DATE	AUG 23,80	AUG 23,80	AUG 23,80
TIME	1530	1545	1600
TOTAL COUNT	1094	56	223
DIVERSITY: PHYLUM	0.0	0.3	0.2
.CLASS	0.0	0.3	0.8
..ORDER	0.4	1.5	1.0
...FAMILY	0.4	1.5	1.0
....GENUS	0.4	1.5	1.1
....GENUS-INSECTA	0.4	1.2	2.9
ORGANISM	COUNT	COUNT	COUNT
ARTHROPODA (ARTHROPODS)			
.ARACHNIDA			
..HYDRACARINA			
...UNKNOWN FAMILY			
....UNKNOWN GENUS	--	--	190
.CRUSTACEA			
..AMPHIPODA			
...TALITRIDAE			
....HYALLELA	--	--	5
.INSECTA			
..COLEOPTERA			
...ELMIDAE			
....DUBIRAPHIA	2	17	3
....STENELMIS	2	--	--
...HYDROPHILIDAE			
....BEROSUS	--	--	1
..DIPTERA			
...CHIRONOMIDAE			
....CRICOTOPUS	12	--	2
....HYDROBAENUS	2	--	--
....NILOTANYPUS	--	--	2
....POLYPEDILUM	--	--	1
....RHEOTANYTARSUS	16	--	1
...SIMULIIDAE			
....SIMULIUM	2	--	--
...TIPULIDAE			
....TIPULA	--	1	--
..EPHEMEROPTERA			
...BAETIDAE			
....BAETIS	4	--	--
...CAENIDAE			
....CAENIS	--	--	6
..HEMIPTERA			
...BELOSTOMATIDAE			
....LETHOCERUS	--	2	--
...NAUCORIDAE			
....AMBRYSUS	14	--	--
..ODONATA			
...COENAGRIONIDAE			
....UNKNOWN GENUS	--	--	3
..TRICHOPTERA			
...HYDROPSYCHIDAE			
....CHEUMATOPSYCHE	1040	33	--
...HYDROPTILIDAE			
....HYDROPTILA	--	--	1
MOLLUSCA (MOLLUSCS)			
.GASTROPODA			
..BASOMMATOPHORA			
...LYMNAEIDAE			
....LYMNAEA	--	--	1
...PHYSIDAE			
....PHYSA	--	1	1
...PLANORBIDAE			
....GYRAULUS	--	2	6

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

CHEYENNE RIVER BASIN

430245105420901 FRANK DRAW TRIBUTARY NO. 2 NEAR ORPHA, WY (LAT 43 02 45 LONG 105 42 09)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR												
11...	1500	2.5	750	--	9.5	2	9.8	--	--	--	--	--
15...	1600	3.2	700	8.5	13.5	--	--	320	180	85	25	29
MAY												
07...	1255	2.6	950	8.3	20.0	4	9.2	--	--	--	--	--
JUN												
13...	1100	3.3	560	8.1	19.5	1	9.1	320	130	88	25	30
AUG												
27...	1200	3.1	750	--	19.5	2	8.7	--	--	--	--	--
SEP												
22...	1320	2.6	725	8.5	16.5	7	9.5	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
APR												
11...	--	--	--	--	--	--	--	--	--	--	--	--
15...	.7	8.8	140	230	5.9	.4	16	--	485	.66	4.19	--
MAY												
07...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
13...	.7	8.9	190	220	5.2	.3	15	492	507	.69	4.52	.06
AUG												
27...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
22...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
APR											
11...	--	--	--	--	--	--	--	--	--	--	--
15...	.03	--	--	--	--	--	--	--	--	--	--
MAY											
07...	--	--	--	--	--	--	--	--	--	--	--
JUN											
13...	.08	.000	.000	.00	.00	1.0	.83	1.0	.17	.83	1.1
AUG											
27...	--	--	--	--	--	--	--	--	--	--	--
SEP											
22...	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, DIS-SOLVED (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED (MG/L AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	PHENOLS (UG/L)	IN-VERTE-BRATES, BENTHIC WET WT. (G/SQ METER)	IN-VERTE-BRATES, BENTHIC TOTAL (ORG/SQ METER)
APR											
11...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
MAY											
07...	--	--	--	--	--	--	--	--	--	--	--
JUN											
13...	.91	4.7	.020	.06	.030	8.9	.2	22	3	--	--
AUG											
27...	--	--	--	--	--	--	--	--	--	4.3	860
SEP											
22...	--	--	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

CHEYENNE RIVER BASIN

430245105420901 FRANK DRAW TRIBUTARY NO. 2 NEAR ORPHA, WY (LAT 43 02 45 LONG 105 42 09)--Continued

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
APR 15...	1600	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	1100	160	130	30	2	0	2	300	100	200	80	0

DATE	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)
APR 15...	--	--	--	--	--	--	--	--	--	--	--
JUN 13...	0	5	0	0	0	0	0	3	3	0	6

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)
APR 15...	--	90	--	--	--	--	--	8	--	--	--
JUN 13...	180	<10	1	1	0	10	3	7	.0	.0	.0

DATE	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
APR 15...	--	--	--	--	--	7	--	--	--	--	--
JUN 13...	1	0	5	6	0	6	0	0	0	30	<3

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)
APR 15...	1600	440	68	70	2.0	337	300

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

CHEYENNE RIVER BASIN

430245105420901 FRANK DRAW TRIBUTARY NO. 2 NEAR ORPHA, WY (LAT 43 02 45 LONG 105 42 09)--Continued

BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1979 TO AUGUST 1980

DATE	AUG 27,80	AUG 27,80
TIME	1045	1100
TOTAL COUNT	80	170
DIVERSITY: PHYLUM	0.3	1.0
.CLASS	0.4	1.3
..ORDER	1.7	0.0
...FAMILY	2.4	0.0
....GENUS	2.4	0.0
....GENUS-INSECTA	2.2	2.8

ORGANISM	COUNT	COUNT
ANNELIDA		
.HIRUDINEA	--	3
ARTHROPODA (ARTHROPODS)		
.CRUSTACEA		
..AMPHIPODA		
...GAMMARIDAE		
....GAMMARUS	1	--
...TALITRIDAE		
....HYALLELA	--	13
.INSECTA		
..COLEOPTERA		
...DYTISCIDAE		
....COLYMBETES	1	--
....DERONECTES	--	1
...HYDROPHILIDAE		
....BEROSUS	--	1
....TROPISTERNUS	--	17
..DIPTERA		
...CHIRONOMIDAE		
....CONCHAPELOPIA	--	2
....EUKIEFFERIELLA	--	1
....POLYPEDILUM	8	--
...SIMULIIDAE		
....SIMULIUM	--	1
..EPHEMEROPTERA		
...BAETIDAE		
....BAETIS	19	9
...CAENIDAE		
....CAENIS	16	3
...EPHEMERELLIDAE		
....EPHEMERELLA	4	1
...SIPHLONURIDAE		
....AMELETUS	--	2
..TRICHOPTERA		
...HYDROPSYCHIDAE		
....HYDROPSYCHE	27	1
...HYDROPTILIDAE		
....AGRAYLEA	--	4
MOLLUSCA (MOLLUSCS)		
.GASTROPODA		
..BASOMMATOPHORA		
...PHYSIDAE		
....PHYSA	4	111

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

CHEYENNE RIVER BASIN

430433105234301 BOX CREEK AT COUNTY ROAD 32, NEAR BILL, WY (LAT 43 04 33 LONG 105 23 43)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR												
11...	1145	.59	1000	--	5.0	10	9.6	--	--	--	--	--
16...	1510	.40	1180	8.2	10.5	--	--	370	90	92	34	130
MAY												
07...	1005	.11	1600	7.7	12.5	10	7.4	--	--	--	--	--
JUN												
12...	1030	.13	850	7.5	20.0	--	9.1	340	110	79	35	110
AUG												
19...	1500	E.07	1170	--	21.5	3	9.0	--	--	--	--	--
19...	1530	--	--	--	--	--	--	--	--	--	--	--
19...	1600	--	--	--	--	--	--	--	--	--	--	--
SEP												
23...	1130	E.10	950	8.3	13.5	2	12.4	--	--	--	--	--

E-Estimate.

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
APR												
11...	--	--	--	--	--	--	--	--	--	--	--	--
16...	2.9	4.1	280	370	9.9	.3	8.5	--	817	1.11	.88	--
MAY												
07...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
12...	2.6	3.6	230	360	8.5	.1	7.5	1590	742	1.01	.26	.02
AUG												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
23...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
APR											
11...	--	--	--	--	--	--	--	--	--	--	--
16...	.02	--	--	--	--	--	--	--	--	--	--
MAY											
07...	--	--	--	--	--	--	--	--	--	--	--
JUN											
12...	.00	.010	.000	.01	.00	.26	.39	.27	.00	.39	.29
AUG											
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
SEP											
23...	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

CHEYENNE RIVER BASIN

430433105234301 BOX CREEK AT COUNTY ROAD 32, NEAR BILL, WY (LAT 43 04 33 LONG 105 23 43)--Continued

DATE	NITROGEN, DISSOLVED (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	PHENOLS (UG/L)	INVERTEBRATES, BENTHIC WET WT. (G/SQ METER)	INVERTEBRATES, BENTHIC TOTAL (ORG/SQ METER)
APR											
11...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
MAY											
07...	--	--	--	--	--	--	--	--	--	--	--
JUN											
12...	.39	1.3	.020	.06	.020	11	.4	2.9	4	--	--
AUG											
19...	--	--	--	--	--	--	--	--	--	2.1	1500
19...	--	--	--	--	--	--	--	--	--	4.4	6600
19...	--	--	--	--	--	--	--	--	--	.6	730
SEP											
23...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
APR												
16...	1510	--	--	--	--	--	--	--	--	--	--	--
JUN												
12...	1030	220	150	70	2	0	2	100	60	40	60	0

DATE	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
APR												
16...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
12...	0	1	0	0	0	1	<3	6	0	8	550	530

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)
APR											
16...	10	--	--	--	--	--	150	--	--	--	--
JUN											
12...	20	30	30	0	80	20	60	.0	.0	.0	4

DATE	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
APR											
16...	--	--	--	--	0	--	--	--	--	--	--
JUN											
12...	2	2	0	0	0	3	3	0	20	10	10

CHEYENNE RIVER BASIN

430433105234301 BOX CREEK AT COUNTY ROAD, NEAR BILL, WY (LAT 43 04 33 LONG 105 23 43)--Continued

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	GROSS ALPHA, DIS- SOLVED (PCI/L AS U-NAT)
APR							
16...	1510	41	10	11	.19	33	28

BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1979 TO AUGUST 1980

DATE	AUG 19,80	AUG 19,80	AUG 19,80
TIME	1500	1530	1600
TOTAL COUNT	140	614	17
DIVERSITY: PHYLUM	0.9	0.9	0.0
.CLASS	1.4	1.9	0.0
..ORDER	2.2	2.3	0.0
...FAMILY	2.7	2.4	0.0
....GENUS	3.3	2.4	0.5
....GENUS-INSECTA	2.7	2.2	0.5
ORGANISM	COUNT	COUNT	COUNT
ARTHROPODA (ARTHROPODS)			
.CRUSTACEA			
..AMPHIPODA			
...TALITRIDAE			
....HYALLELA	8	242	--
.INSECTA			
..COLEOPTERA			
...DYTISCIDAE			
....AGABUS	--	24	--
...HYDROPHILIDAE			
....TROPISTERNUS	--	12	--
..DIPTERA			
...CERATOPOGONIDAE-HELEIDAE			
....UNKNOWN GENUS	2	--	--
...CHIRONOMIDAE			
....CHIRONOMUS	--	--	15
....CONCHAPELOPIA	4	--	--
....CRICOTOPUS	32	--	--
....CRYPTOCHIRONOMUS	8	--	--
....PROCLADIUS	8	--	--
....STICTOCHIRONOMUS	--	--	2
....TANYTARSUS	--	8	--
...TIPULIDAE			
....TIPULA	10	8	--
..EPHEMEROPTERA			
...CAENIDAE			
....CAENIS	20	--	--
..HEMIPTERA			
...CORIXIDAE			
....UNKNOWN GENUS	4	--	--
..ODONATA			
...COENAGRIONIDAE			
....ENALLAGMA	4	48	--
..TRICHOPTERA			
...HYDROPTILIDAE			
....HYDROPTILA	--	48	--
MOLLUSCA (MOLLUSCS)			
.BIVALVIA			
..SCHIZODONTA			
...UNIONIDAE			
....LAMPSILIS	18	64	--
.GASTROPODA			
..BASOMMATOPHORA			
...PHYSIDAE			
....PHYSA	20	160	--
...PLANORBIDAE			
....HELISOMA	2	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

CHEYENNE RIVER BASIN

430609105163901 BOX CREEK AT JOHNSON RANCH, NEAR BILL, WY (LAT 43 06 09 LONG 105 16 39)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH FIELD (UNITS)	TEMPER- ATURE, WATER (DEG C)	TUR- BID- ITY (JTU)	OXYGEN, DIS- SOLVED (MG/L)
AUG						
19...	1400	5800	--	26.0	--	18.2
SEP						
23...	--	3300	9.1	14.5	20	4.2

BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1979 TO AUGUST 1980

DATE	AUG 19,80
TIME	1400
TOTAL COUNT	55
DIVERSITY: PHYLUM	0.8
.CLASS	0.8
..ORDER	1.1
...FAMILY	2.0
....GENUS	0.0
....GENUS-INSECTA	0.0

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.INSECTA	
..COLEOPTERA	
...HALIPLIDAE	
....HALIPLUS	2
...NOTERIDAE	1
..DIPTERA	
...CHIRONOMIDAE	
....CRICOTOPUS	3
..HEMIPTERA	
...NOTONECTIDAE	
....NOTONECTA	7
MOLLUSCA (MOLLUSCS)	
.GASTROPODA	
..BASOMMATOPHORA	
...LYMNAEIDAE	
....LYMNAEA	7
...PHYSIDAE	
....PHYSA	31
...PLANORBIDAE	
....GYRAULUS	4

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

CHEYENNE RIVER BASIN

06392900 BEAVER CREEK AT MALLOW CAMP, NEAR FOUR CORNERS, WY (LAT 44 05 04 LONG 104 03 41)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH FIELD (UNITS)	TEMPERATURE, WATER (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT								
09...	1225	441	--	4.5	--	--	--	--
DEC								
04...	1205	508	--	.0	--	--	--	--
FEB								
25...	1300	450	--	2.0	--	--	--	--
APR								
28...	1430	390	--	12.0	--	--	--	--
JUN								
18...	1415	480	--	16.0	--	--	--	--
JUL								
23...	1400	445	--	18.0	--	--	--	--
24...	--	430	7.8	13.5	240	31	60	22
AUG								
26...	1445	320	--	10.0	--	--	--	--

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)	IODIDE, DISSOLVED (MG/L AS I)
OCT									
09...	--	--	--	--	--	--	--	--	--
DEC									
04...	--	--	--	--	--	--	--	--	--
FEB									
25...	--	--	--	--	--	--	--	--	--
APR									
28...	--	--	--	--	--	--	--	--	--
JUN									
18...	--	--	--	--	--	--	--	--	--
JUL									
23...	--	--	--	--	--	--	--	--	--
24...	1.1	.0	.8	240	.5	20	.2	.0	.00
AUG									
26...	--	--	--	--	--	--	--	--	--

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
OCT								
09...	--	--	--	--	--	--	--	--
DEC								
04...	--	--	--	--	--	--	--	--
FEB								
25...	--	--	--	--	--	--	--	--
APR								
28...	--	--	--	--	--	--	--	--
JUN								
18...	--	--	--	--	--	--	--	--
JUL								
23...	--	--	--	--	--	--	--	--
24...	14	223	245	.33	30	>10	60	3.0
AUG								
26...	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

NIOBRARA RIVER BASIN

06454000 NIOBRARA RIVER AT WYOMING-NEBRASKA STATE LINE (LAT 42 39 33 LONG 104 03 54)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	TUR-BID-ITY (JTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR												
12...	1200	--	520	--	7.0	1	14.0	--	--	--	--	--
MAY												
19...	1355	--	750	7.8	16.0	2	10.6	--	--	--	--	--
JUN												
19...	1345	2.3	356	--	16.0	2	12.4	170	0	51	11	8.8
AUG												
26...	1130	--	--	--	--	--	--	--	--	--	--	--
26...	1145	--	--	--	--	--	--	--	--	--	--	--
26...	1200	--	380	--	13.5	1	12.4	--	--	--	--	--
SEP												
29...	1200	--	445	7.7	12.0	1	11.6	--	--	--	--	--
29...	1400	--	--	--	--	2	--	--	--	--	--	--
29...	1915	--	400	7.1	11.5	--	5.1	--	--	--	--	--
30...	0215	--	385	6.9	9.5	--	4.4	--	--	--	--	--
30...	0730	--	350	7.1	8.0	--	5.4	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
APR												
12...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
19...	.3	5.7	200	14	2.2	.3	50	263	267	.36	1.66	.75
AUG												
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
29...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
APR											
12...	--	--	--	--	--	--	--	--	--	--	--
MAY											
19...	--	--	--	--	--	--	--	--	--	--	--
JUN											
19...	.71	.030	.030	.04	.04	.45	.70	.48	.00	.73	1.2
AUG											
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
SEP											
29...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

NIOBRARA RIVER BASIN

06454000 NIOBRARA RIVER AT WYOMING-NEBRASKA STATE LINE (LAT 42 39 33 LONG 104 03 54)--Continued

DATE	NITROGEN, DISSOLVED (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)	PHOSPHORUS, DISSOLVED (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED (MG/L AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)	PHENOLS (UG/L)	INVERTEBRATES, BENTHIC WET WT. (G/SQ METER)	INVERTEBRATES, BENTHIC TOTAL (ORG/SQ METER)
APR											
12...	--	--	--	--	--	--	--	--	--	--	--
MAY											
19...	--	--	--	--	--	--	--	--	--	--	--
JUN											
19...	1.4	5.4	.040	.12	.020	5.2	.2	16	0	--	--
AUG											
26...	--	--	--	--	--	--	--	--	--	9.7	9900
26...	--	--	--	--	--	--	--	--	--	3.2	1800
26...	--	--	--	--	--	--	--	--	--	6.4	3300
SEP											
29...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, SUSPENDED RECOV. (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC SUSPENDED TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BORON, DISSOLVED (UG/L AS B)
JUN											
19...	1345	110	110	0	3	1	2	200	0	200	70

DATE	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
JUN											
19...	0	<1	0	0	0	0	<3	3	2	1	180

DATE	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)
JUN											
19...	140	40	2	0	3	20	10	10	.0	.0	.0

DATE	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
JUN											
19...	2	1	1	0	0	0	0	0	0	10	<3

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

NIOBRARA RIVER BASIN

06454000 NIOBRARA RIVER AT WYOMING-NEBRASKA STATE LINE (LAT 42 39 33 LONG 104 03 54)--Continued

BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1979 TO AUGUST 1980

DATE	AUG 26,80	AUG 26,80	AUG 26,80
TIME	1100	1130	1145
TOTAL COUNT	608	907	218
DIVERSITY: PHYLUM	0.5	0.3	0.0
.CLASS	0.5	0.8	0.0
..ORDER	1.7	1.4	1.3
...FAMILY	1.9	1.8	1.9
....GENUS	1.9	2.3	2.9
....GENUS-INSECTA	1.5	1.8	2.9
ORGANISM	COUNT	COUNT	COUNT
ANNELIDA			
.HIRUDINEA			
..PHARYNGOBDELLIDA			
...ERPOBDELLIDAE			
....ERPOBDELLA	16	--	--
..RHYNCHOBDELLIDA			
...GLOSSIPHONIIDAE			
....HELOBDELLA	4	--	--
.OLIGOCHAETA			
..PLESIOPORA			
...TUBIFICIDAE			
....UNKNOWN GENUS	28	--	--
ARTHROPODA (ARTHROPODS)			
.CRUSTACEA			
..AMPHIPODA			
...TALITRIDAE			
....HYALLELA	--	93	--
.INSECTA			
..COLEOPTERA			
...DYTISCIDAE			
....AGABUS	--	--	2
...HALIPLIDAE			
....HALIPLUS	--	8	1
..DIPTERA			
...CHAOBORIDAE			
....UNKNOWN GENUS	--	--	2
...CHIRONOMIDAE			
....CONCHAPELOPIA	--	12	--
....CRICOTOPUS	--	16	9
....GLYPTOTENDIPES	--	--	87
....LIMNOCHIRONOMUS	376	522	21
....MICROPSECTRA	--	8	--
....PARATANYTARSUS	--	12	4
....PARATRICHOCLADIUS	--	--	6
....TANYTARSUS	--	24	4
...SIMULIIDAE			
....SIMULIUM	--	60	25
..EPHEMEROPTERA			
...BAETIDAE			
....BAETIS	76	64	32
...CAENIDAE			
....CAENIS	--	32	--
...TRICORYTHIDAE			
....TRICORYTHODES	16	--	--
..MEGALOPTERA			
...SIALIDAE			
....SIALIS	4	--	5
..TRICHOPTERA			
...HELICOPSYCHIDAE			
....HELICOPSYCHE	60	--	3
...HYDROPSYCHIDAE			
....CHEUMATOPSYCHE	24	--	--
....HYDROPSYCHE	--	8	9
...HYDROPTILIDAE			
....HYDROPTILA	--	--	8
MOLLUSCA (MOLLUSCS)			
.BIVALVIA			
..SCHIZODONTA			
...UNIONIDAE			
....LAMPSILIS	--	48	--
PLATYHELMINTHES (FLATWORMS)			
.TURBELLARIA			
..TRICLADIDA			
...PLANARIIDAE			
....UNKNOWN GENUS	4	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PLATTE RIVER BASIN

411523106382201 NORTH PLATTE RIVER ABOVE BEAVER CREEK, NEAR ENCAMPMENT, WY (LAT 41 15 23 LONG 106 38 22)

DATE	TIME	TEMPERATURE, WATER (DEG C)	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOTTOM MATERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP IN BOTTOM MATERIL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOTTOM MATERIAL (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOTTOM MATERIAL (UG/KG)
MAY										
19...	1740	--	.00	<0	--	<.0	.00	0	.00	.0
JUN										
24...	1720	--	.00	0	.00	.0	.00	0	.00	.0
JUL										
15...	1710	20.0	.00	0	.00	.0	.00	0	.00	.0
AUG										
20...	1700	--	.00	0	.00	.0	.04	0	.00	.0
SEP										
19...	0800	--	.00	0	.00	.0	.00	0	.00	.0

DATE	TOTAL DICAMBA (UG/L)	DICAMBA IN BOTTOM MATERIAL (UG/KG)	TOTAL PICLORAM (UG/L)	PICLORAM IN BOTTOM MATERIAL (UG/KG)
MAY				
19...	.00	.0	.01	.0
JUN				
24...	.00	.0	.04	.0
JUL				
15...	.00	.0	.01	.0
AUG				
20...	.00	.0	.00	.0
SEP				
19...	.00	.0	.00	.0

CAMPBELL COUNTY

434611105295001. Local number, 44N 072W 22cc01.
LOCATION.--Lat 43°46'11", long 105°29'50", in SW¼SW¼ sec.22, T.44 N., R.72 W., Hydrologic Unit 10120201.
Owner: Durham Meat Co.
AQUIFER.--Wasatch Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 14 in (36 cm), depth 189 ft (57.6 m), cased.
DATUM.--Altitude of land-surface datum is about 4,890 ft (1,490 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.
PERIOD OF RECORD.--May 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 43.80 ft (13.35 m) below land-surface datum, Oct. 7, 1968; lowest, 47.87 ft (14.59 m) below land-surface datum, Sept. 3, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
NOV 6	46.45
MAR 20	46.10

CARBON COUNTY

414104106442801. Local number, 20N 083W 28bab01.
LOCATION.--Lat 41°41'04", long 106°44'28", in NW¼NE¼NW¼ sec.28, T.20 N., R.83 W., Hydrologic Unit 10180002.
Owner: State of Wyoming.
AQUIFER.--Sand of North Park Formation.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 3 in (8 cm), depth 33 ft (10.0 m), cased.
DATUM.--Altitude of land-surface datum is about 6,762 ft (2,061 m). Measuring point: Top of casing 2.70 ft (0.82 m) above land-surface datum.
PERIOD OF RECORD.--August 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.13 ft (4.61 m) below land-surface datum, Nov. 18, 1975; lowest, 22.00 ft (6.71 m) below land-surface datum, Sept. 22, 1961.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
OCT 24	16.01
MAR 26	16.45

CONVERSE COUNTY

424229105242901. Local number, 32N 071W 31aaa01.
LOCATION.--Lat 42°42'29", long 105°24'29", in NE¼NE¼NE¼ sec.31, T.32 N., R.71 W., Hydrologic Unit 10180008.
Owner: Mrs. Sallie Edwards.
AQUIFER.--Siltstone of White River Group.
WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter 6 in (15 cm), depth 84 ft (25.6 m), cased.
DATUM.--Altitude of land-surface datum is about 4,837 ft (1,474 m). Measuring point: Hole in pump housing, 1.70 ft (0.52 m) above land-surface datum.
PERIOD OF RECORD.--July 1950 to September 1956, May 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.17 ft (3.71 m) below land-surface datum, Dec. 15, 1970; lowest, 31.15 ft (9.49 m) below land-surface datum, Feb. 22, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
NOV 2	17.99
MAR 21	14.34

CROOK COUNTY

443503104425101. Local number, 53N 065W 18bac01.
LOCATION.--Lat 44°35'03", long 104°42'51", in SW¼NE¼NW¼ sec.18, T.53 N., R.65 W., Hydrologic Unit 10120201.
Owner: National Park Service.
AQUIFER.--Minnekahta Limestone.
WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (15 cm), depth 468 ft (142.6 m), cased to 448 ft (136.6 m), open hole below.
DATUM.--Altitude of land-surface datum is about 3,865 ft (1,178 m). Measuring point: Top of casing, 1.10 ft (0.34 m) above land-surface datum.
PERIOD OF RECORD.--July 1955, April 1960, May 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.95 ft (3.64 m) below land-surface datum, Oct. 8, 1975; lowest, 26.10 ft (7.96 m) below land-surface datum, Apr. 23, 1963.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
NOV 7	13.80
MAR 19	14.50

CROOK COUNTY--Continued

443459104425601. Local number, 53N 065W 18bbd02.

LOCATION.--Lat 44°34'59", long 104°42'56", in SE¼NW¼NW¼ sec.18, T.53 N., R.65 W., Hydrologic Unit 10120201. Owner: National Park Service.

AQUIFER.--Pahasapa Limestone.

WELL CHARACTERISTICS.--Drilled artesion well, diameter 8 in (20 cm), depth 1,341 ft (408.7 m), perforated casing 1,315-1,341 ft (400.8-408.7 m).

DATUM.--Altitude of land-surface datum is about 3,865 ft (1,178 m). Measuring point: Top of casing 2.30 ft (0.70 m) above land-surface datum.

PERIOD OF RECORD.--September 1962 to current year.

REVISED RECORDS.--WDR WY-77-1: 1977 (water levels).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.90 ft (1.19 m) below land-surface datum, Sept. 1, 1976; lowest, 22.24 ft (6.78 m) below land-surface datum, May 8, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
NOV 7	7.86
MAR 19	9.02

FREMONT COUNTY

431327108311101. Local number, 03N 003E 21ada02.

LOCATION.--Lat 43°13'27", long 108°31'11", in NW¼SE¼NE¼ sec.21, T.3 N., R.3 E., Hydrologic Unit 10080005. Owner: H. W. Roland.

AQUIFER.--Sandstone of Wind River Formation.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (15 cm), depth 425 ft (129.5 m), cased to 403 ft (122.8 m).

DATUM.--Altitude of land-surface datum is about 5,273 ft (1,607 m). Measuring point: Top of casing at land-surface datum.

PERIOD OF RECORD.--December 1948 to current year.

REVISED RECORDS.--WDR WY-79-1: 1950 (highest water-level).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 146.29 ft (44.59 m) below land-surface datum, Dec. 1, 1950; lowest, 171.48 ft (52.27 m) below land-surface datum, Jan. 12, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
NOV 5	149.95
MAR 10	148.95

431253108284401. Local Number, 03N 003E 25bbb01.

LOCATION.--Lat 43°12'53", long 108°28'44", in NW¼NW¼NW¼ sec.25, T.3 N., R.3 E., Hydrologic Unit 10080005. Owner: U.S. Bureau of Reclamation.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 3 in (8 cm), depth 28 ft (8.5 m), casing perforated 0-28 ft (0-8.5 m).

DATUM.--Altitude of land-surface datum is about 5,150 ft (1,570 m). Measuring point: Top of casing 1.50 ft (0.46 m) above land-surface datum.

PERIOD OF RECORD.--October 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.81 ft (0.55 m) below land-surface datum, Aug. 29, 1974; lowest, 15.38 ft (4.69 m) below land-surface datum, May 10, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
NOV 5	9.76
MAR 10	13.24

GOSHEN COUNTY

413816104094901. Local number, 19N 061W 02ccd01.

LOCATION.--Lat 41°38'16", long 104°09'49", in SE¼SW¼SW¼ sec.2, T.19 N., R.61 W., Hydrologic Unit 10180012. Owner: City of LaGrange.

AQUIFER.--Gravel of alluvium.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in (10 cm), depth 30 ft (9.1 m), galvanized casing.

DATUM.--Altitude of land-surface datum is 4,577.2 ft (1,395.1 m). Measuring point: Top of casing, 0.90 ft (0.27 m) above land-surface datum.

PERIOD OF RECORD.--May to July 1943, April 1949 to October 1969, May 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.26 ft (3.43 m) below land-surface datum, Aug. 29, 1973; lowest, 21.20 ft (6.46 m) below land-surface datum, Oct. 5, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	16.92	JAN 8	11.70	JUL 21	14.36
NOV 14	15.13	MAR 5	12.30	AUG 5	14.58
DEC 20	12.08	APR 30	14.75		

413813104115501. Local number, 19N 061W 04cdd02.
LOCATION.--Lat 41°38'13", long 104°11'55", in SE¼SE¼SW¼ sec.4, T.19 N., R.61 W., Hydrologic Unit 10180012.
Owner: Frank Sanders.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 4 ft (1.2 m), depth 33 ft (10.1 m), cased, connected by syphon to nearby irrigation well.
DATUM.--Altitude of land-surface datum is about 4,557 ft (1,389 m). Measuring point: Top of casing, north side, 0.20 ft (0.06 m) above land-surface datum.
PERIOD OF RECORD.--June 1943, November 1948 to October 1969, May 1972 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.07 ft (1.24 m) below land-surface datum, June 4, 1949; lowest, 29.94 ft (9.13 m) below land-surface datum (nearby well being pumped), Sept. 21, 1961.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	10.18	JAN 8	8.51	JUL 21	25.27
NOV 14	8.97	MAR 5	7.78	AUG 5	26.82
DEC 20	8.48	APR 30	7.04	SEP 10	9.08

415902104031601. Local number, 23N 060W 10aac01.
LOCATION.--Lat 41°59'02", long 104°03'16", in SW¼NE¼NE¼ sec.10, T.23 N., R.60 W., Hydrologic Unit 10180009.
Owner: French Ditch Irrigation Co.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (61 cm) depth 50 ft (15.2 m), cased.
DATUM.--Altitude of land-surface datum is 4,030.8 ft (1,228.6 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.
PERIOD OF RECORD.--September 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.34 ft (1.32 m) below land-surface datum, May 20, 1971; lowest, 9.08 (2.77 m) below land-surface datum, Mar. 19, 1975; maximum low, 16.43 ft (5.01 m) below land-surface datum (well being pumped), Aug. 10, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
OCT 4	8.33
JAN 8	8.54

420449104133401. Local number, 24N 061W 05cbb02.
LOCATION.--Lat 42°04'49", long 104°13'34", in NW¼NW¼SW¼ sec.5, T.24 N., R.61 W., Hydrologic Unit 10180009.
Owner: U.S. Geological Survey.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 1 in (3 cm), depth 27 ft (8.2 m), cased to 27 ft (8.2 m), sand point.
DATUM.--Altitude of land-surface datum is about 4,121 ft (1,256 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above land-surface datum. Prior to June 1962 top of casing was 4.50 ft (1.37 m) above land-surface datum. Prior to October 1955 top of casing was 2.60 ft (0.79 m) above land-surface datum.
PERIOD OF RECORD.--October 1951 to current year. Prior to June 1962 well was located 3.0 ft (0.9 m) east of present location.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.28 ft (5.57 m) below land-surface datum, July 10, 1973; lowest, 26.20 ft (7.99 m) below land-surface datum, Apr. 18, 1955.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
OCT 4	20.66
JAN 8	24.09
APR 22	23.98

420426104100601. Local number, 24N 061W 11bbb01.
LOCATION.--Lat 42°04'26", long 104°10'06", in NW¼NW¼NW¼ sec.11, T.24 N., R.61 W., Hydrologic Unit 10180009.
Owner: Bill Ring.
AQUIFER.--Terrace deposits.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (46 cm), depth 118 ft (36.0 m), cased with 10 gauge steel.
DATUM.--Altitude of land-surface datum is about 4,207 ft (1,282 m). Measuring point: Top edge of hole in pump base, 0.75 ft (0.23 m) above land-surface datum.
PERIOD OF RECORD.--August 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 69.32 ft (21.13 m) below land-surface datum, Oct. 8, 1974; lowest, 87.85 ft (26.78 m) below land-surface datum, May 18, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
OCT 5	78.50
JAN 8	83.87
APR 22	79.08

420626104114501. Local number, 25N 061W 28dbc01.
LOCATION.--Lat 42°06'26", long 104°11'45", in SW¼NW¼SE¼ sec.28, T.25 N., R.61 W., Hydrologic Unit 10180009.
Owner: M. W. Berry
AQUIFER.--Gravel of terrace deposits.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (61 m), depth 108 ft (32.9 m) cased, gravel packed.
DATUM.--Altitude of land-surface datum is 4,223.1 ft (1,287.2 m). Measuring point: Top of casing, 0.90 ft (0.27 m) above land-surface datum.
PERIOD OF RECORD.--May 1943, October 1948 to May 1952, June 1954 to current year.
REVISED RECORDS.-- WDR WY-79-1: 1951 (highest water-level); 1964 (lowest water-level).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.58 ft (11.15 m) below land-surface datum, Oct. 16, 1951; lowest, 59.60 ft (18.17 m) below land-surface datum, Sept. 3, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
OCT 5	49.85
JAN 8	49.44
APR 22	52.39

421031104170001. Local number, 25N 062W 02bbb01.
LOCATION.--Lat 42°10'31", long 104°17'00", in NW¼NW¼NW¼ sec.2, T.25 N., R.62 W., Hydrologic Unit 10180009.
Owner: U.S. Geological Survey.
AQUIFER.--Terrace deposits.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 1 in (3 cm), depth 28 ft (8.5 m), cased.
DATUM.--Altitude of land-surface datum is about 4,230 ft (1,289 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above land-surface datum.
PERIOD OF RECORD.--June 1962 to current year.
REVISED RECORDS.-- WDR WY-79-1: 1966 (highest water-level).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.15 ft (2.79 m) below land-surface datum, Sept. 7, 1966; lowest, 12.99 ft (3.96 m) below land-surface datum, Apr. 7, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
OCT 4	10.10
JAN 8	11.71
APR 22	12.13

420753104204701. Local number, 25N 062W 19aab01
LOCATION.--Lat 42°07'53", long 104°20'47", in NW¼NE¼NE¼ sec.19, T.25 N., R.62 W., Hydrologic Unit 10180009.
Owner: Homer Stroud.
AQUIFER.--Gravel of alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (46 cm), depth 83 ft (25.3 m), cased.
DATUM.--Altitude of land-surface datum is about 4,172 ft (1,272 m). Measuring point: Top of pump base, 0.60 ft (0.18 m) above land-surface datum.
PERIOD OF RECORD.--October 1948 to September 1953, April 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.07 ft (5.51 m) below land-surface datum, Sept. 26, 1952; lowest, 27.23 ft (8.30 m) below land-surface datum, May 21, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
OCT 4	21.08
JAN 8	24.88
APR 22	25.95

420900104262201. Local number, 25N 063W 09ccb01.
LOCATION.--Lat 42"09'00", long 104°26'22", in NW¼SW¼SW¼ sec.9, T.25 N., R.63 W., Hydrologic Unit 10180009.
Owner: Emery Bright.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (61 cm), depth 61 ft (18.6 m), galvanized casing, gravel packed.
DATUM.--Altitude of land-surface datum is 4,196.8 ft (1,279.2 m). Measuring Point: Top of casing, 1.50 ft (0.46 m) above land-surface datum.
PERIOD OF RECORD.--August 1943, November 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.34 ft (4.98 m) below land-surface datum (water in nearby channel), Sept. 26, 1952; lowest, 24.85 ft (7.57 m) below land-surface datum, Oct. 8, 1962; maximum low, 31.80 ft (9.69 m) below land-surface datum (well being pumped), July 17, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
OCT 4	19.87
JAN 8	21.95
APR 22	21.74

GOSHEN COUNTY--Continued

421357104165001. Local number, 26N 062W 14bba01.
LOCATION.--Lat 42°13'57", long 104°16'50", in NE¼NW¼NW¼ sec.14, T.26 N., R.62 W., Hydrologic Unit 10180009.
Owner: Arthur Damrow.
AQUIFER.--Gravel of alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (46 cm), reported depth 39 ft (11.9 m), galvanized iron casing, gravel packed.
DATUM.--Altitude of land-surface datum is 4,274.4 ft (1,302.8 m). Measuring point: Hole in wood cover, 0.20 ft (0.06 m) above land-surface datum.
PERIOD OF RECORD.--October 1948 to current year.
REVISED RECORDS.--WDR WY-79-1: 1971 (highest water level).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.78 ft (3.29 m) below land-surface datum, June 30, 1971; lowest, 18.03 ft (5.50 m) below land-surface datum, Sept. 21, 1961.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
OCT 4	15.81
JAN 8	14.56
APR 22	13.75

421044104263201. Local number, 26N 063W 32dac01.
LOCATION.--Lat 42°10'44", long 104°26'32", in SW¼NE¼SE¼ sec.32, T.26 N., R.63 W., Hydrologic Unit 10180009.
Owner: Joseph Speckner.
AQUIFER.--Gravel of alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (46 cm), depth 80 ft (24.4 m), cased to 80 ft (24.4 m).
DATUM.--Altitude of land-surface datum is 4,204.6 ft (1,281.6 m). Measuring point: Top of casing through hole in pump base at land-surface datum.
PERIOD OF RECORD.--October 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.97 ft (5.48 m) below land-surface datum, Sept. 26, 1952; lowest, 27.82 ft (8.48 m) below land-surface datum, Feb. 26, 1971; maximum low, 28.51 ft (8.69 m) below land-surface datum (well being pumped), Oct. 1, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
OCT 4	21.87
JAN 8	24.66
APR 22	24.74

421216104332301. Local number, 26N 064W 28bbb01.
LOCATION.--Lat 42°12'16", long 104°33'23", in NW¼NW¼NW¼ sec.28, T.26 N., R.64 W., Hydrologic Unit 10180009.
Owner: National Park Service.
AQUIFER.--Gravel of alluvium.
WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter 18 in (46 cm), depth 29 ft (8.8 m), cased to 29 ft (8.8 m).
DATUM.--Altitude of land-surface datum is 4,245.9 ft (1,294.2 m). Measuring point: Top of casing, 1.20 ft (0.37 m) above land-surface datum.
PERIOD OF RECORD.--July 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.72 ft (3.27 m) below land-surface datum, May 15, 1973; lowest, 17.80 ft (5.43 m) below land-surface datum, Oct. 16, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 4	16.94	JAN 4	17.01	APR 4	16.67	JUL 7	15.59
NOV 5	17.10	FEB 4	16.32	MAY 5	15.20	AUG 4	15.81
DEC 6	17.20	MAR 4	16.52	JUN 4	14.40	SEP 4	16.38

421205104333001. Local number, 26N 064W 29ada01.
LOCATION.--Lat 42°12'05", long 104°33'30", in NE¼SE¼NE¼ sec.29, T.26 N., R.64 W., Hydrologic Unit 10180011.
Owner: National Park Service.
AQUIFER.--Gravel of alluvium.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in (91 cm), depth 43 ft (13.1 m), cribbed with rock.
DATUM.--Altitude of land-surface datum is 4,248.8 ft (1,295.0 m). Measuring point: Top of platform, 0.80 ft (0.24 m) above land-surface datum.
PERIOD OF RECORD.--September 1942 to February 1943, August 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.40 ft (3.78 m) below land-surface datum, May 17, 1971; lowest, 19.17 ft (5.84 m) below land-surface datum, Feb. 20, 1954.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 4	18.38	JAN 4	18.04	APR 4	17.72	JUL 7	17.63
NOV 5	18.05	FEB 4	17.58	MAY 5	16.42	AUG 4	18.16
DEC 6	18.20	MAR 4	17.44	JUN 4	15.89	SEP 4	18.22

JOHNSON COUNTY

442427106494001. Local number, 51N 083W 10acb01.

LOCATION.--Lat 44°24'27", long 106°49'40", in NW¼SW¼NE¼ sec.10, T.51 N., R.83 W., Hydrologic Unit 10090206. Owner: Helen Rauch.

AQUIFER.--Kingsbury Conglomerate member of Wasatch Formation.

WELL CHARACTERISTICS.--Drilled stock water-table well, diameter 6 in (15 cm), depth 275 ft (83.8 m), cased to 205 ft (62.5 m).

DATUM.--Altitude of land-surface datum is about 5,240 ft (1,597 m). Measuring point: Top of casing, 1.60 ft (0.49 m) above land-surface datum.

PERIOD OF RECORD.--January 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 30.90 ft (9.42 m) below land-surface datum, Apr. 11, 1960; lowest, 35.86 ft (10.93 m) below land-surface datum (surface water on ground near well), May 28, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
JAN 17	35.48
MAY 16	35.53

LARAMIE COUNTY

410534105002401. Local number, 13N 068W 16dbd01.

LOCATION.--Lat 41°05'34", long 105°00'24", in SE¼NW¼SE¼ sec.16, T.13 N., R.68 W., Hydrologic Unit 10190008. Owner: City of Cheyenne.

AQUIFER.--Gravel of Ogallala Formation.

WELL CHARACTERISTICS.--Drilled municipal water-table well, diameter 10 to 8 in (25 to 20 cm), depth 300 ft (91.4 m), cased.

DATUM.--Altitude of land-surface datum is 6,641.9 ft (2,024.5 m). Measuring point: Top of auxiliary pipe, 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--September 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 104.16 ft (31.75 m) below land-surface datum, Nov. 30, 1949; lowest, 157.95 ft (48.14 m) below land-surface datum, Mar. 20, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
MAY 2	147.03

411238104070801. Local number, 14N 060W 05bcb01.

LOCATION.--Lat 41°12'38", long 104°07'08", in NW¼SW¼NW¼ sec.5, T.14 N., R.60 W., Hydrologic Unit 10190015. Owner: C. C. Gross.

AQUIFER.--Siltstone of Brule Formation.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 18 in (46 cm), reported depth 100 ft (30.5 m), cased.

DATUM.--Altitude of land-surface datum is about 5,082 ft (1,549 m). Measuring point: Top of casing, at land-surface datum.

PERIOD OF RECORD.--October 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.40 ft (8.96 m) below land-surface datum, July 9, 10, 1967; lowest, 56.62 ft (17.26 m) below land-surface datum, July 30, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

Highest water level for the day, from recorder graph

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	43.18	39.84	38.10	37.42	36.85	35.49	34.84	34.41	35.46	54.07	45.24	.....
10	42.28	39.42	37.91	37.27	36.73	35.42	34.76	34.29	35.73	44.93	44.10	.....
15	41.51	39.14	37.76	37.25	36.68	35.25	34.70	34.27	50.41	44.49	42.82	.....
20	41.09	38.84	37.94	37.17	36.61	35.21	34.61	34.22	38.28	54.31	41.65	.....
25	41.09	38.55	37.81	37.04	36.19	35.06	34.56	34.28	42.94	42.84	47.11	.....
EOM	40.24	38.36	37.63	36.96	35.73	34.95	34.46	34.14	52.50	53.87	.....	.....

WTR YEAR 1980 MAX 34.09 JUN 3, 4 MIN 55.40 AUG 5

LARAMIE COUNTY--Continued

411034104554001. Local number, 14N 067W 18ddc01.
LOCATION.--Lat 41°10'34", long 104°55'40", in SW¼SE¼SE¼ sec.18, T.14 N., R.67 W., Hydrologic Unit 10190009.
Owner: City of Cheyenne.
AQUIFER.--Gravel of Brule Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in (30 cm), depth 229 ft (69.8 m), cased.
DATUM.--Altitude of land-surface datum is about 6,248 ft (1,904 m). Measuring point: Top of casing, 1.50 ft (0.46 m) above land-surface datum.
PERIOD OF RECORD.--May 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.48 ft (3.80 m) below land-surface datum, Sept. 26, Oct. 28, 1957; lowest, 49.18 ft (14.99 m) below land-surface datum, Aug. 31, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

Highest water level for the day, from recorder graph

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.99	25.42	25.90	23.21	23.49	23.15	23.47	20.14	22.97	27.12	28.85	29.96
10	27.25	26.39	25.97	23.07	23.47	23.40	23.78	19.70	.....	27.39	29.45	30.05
15	26.92	26.80	24.61	23.30	23.66	23.36	23.04	19.67	24.25	26.77	28.84	29.75
20	26.49	26.86	24.21	22.29	23.37	23.59	22.46	19.44	24.57	27.46	28.76	29.06
25	25.99	26.47	24.31	23.55	23.52	23.32	21.82	19.69	25.44	27.72	29.42	28.86
EOM	25.87	26.18	23.68	23.68	23.35	23.33	20.96	20.35	26.92	28.08	30.10	28.62

WTR YEAR 1980 MAX 19.44 MAY 20 MIN 30.42 SEP 12

411050104584701. Local number, 14N 068W 14cbb01.
LOCATION.--Lat 41°10'50", long 104°58'47", in NW¼NW¼SW¼ sec.14, T.14N., R.68 W., Hydrologic Unit 10190009.
Owner: City of Cheyenne.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in (30 cm), depth 188 ft (57.3 m), cased.
DATUM.--Altitude of land-surface datum is about 6,310 ft (1,923 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--September 1941 to February 1948, February 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.09 ft (2.16 m) below land-surface datum, Feb. 26, 1944; lowest, 65.34 ft (19.92 m) below land-surface datum, Apr. 18, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
APR 28	10.79

410836105002801. Local number, 14N 068W 33abc01.
LOCATION.--Lat 41°08'36", long 105°00'28", in SW¼NW¼NE¼ sec.33, T.14 N., R.68 W., Hydrologic Unit 10190009.
Owner: City of Cheyenne.
AQUIFER.--Gravel of Ogallala Formation.
WELL CHARACTERISTICS.--Drilled municipal water-table well, diameter 10 in (25 cm), depth 230 ft (70.1 m), perforated casing.
DATUM.--Altitude of land-surface datum is about 6,568 ft (2,002 m). Measuring point: Top of auxiliary pipe, south side of well, 2.30 ft (0.70 m) above land-surface datum.
PERIOD OF RECORD.--January 1947 to September 1970, April 1973 to current year.
REVISED RECORDS.--WDR-WY-79-1: 1978 (water-levels).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 120.16 ft (36.62 m) below land-surface datum, Feb. 11, 1950; lowest, 192.56 ft (58.69 m) below land-surface datum, July 5, 1957.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
APR 29	164.65

411750104510901. Local number, 15N 067W 02dba01.
LOCATION.--Lat 41°17'50", long 104°51'09", in NE¼NW¼SE¼ sec.2, T.15 N., R.67 W., Hydrologic Unit 10190015.
Owner: Ervin A. Mueller.
AQUIFER.--Gravel of Ogallala Formation.
WELL CHARACTERISTICS.--Drilled irrigation artesian well, diameter 16 in (41 cm), depth 182 ft (55.5 m), cased, perforated 78-84 ft (23.8-25.6 m), 123-132 ft (37.5-40.2 m), 139-152 ft (42.4-46.3 m).
DATUM.--Altitude of land-surface datum is about 6,240 ft (1,902 m). Measuring point: Hole in side of casing, at land-surface datum.
PERIOD OF RECORD.--June 1961 to December 1970, September 1972, May 1975 to current year.
REVISED RECORDS.--WDR WY-78-1: (water level).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 72.14 ft (21.99 m) below land-surface datum, May 5, 1964; lowest, 77.06 ft (23.49 m) below land-surface datum, Oct. 1, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
APR 24	74.97

NATRONA COUNTY

432633106115201. Local number, 40N 078W 15aab01.
LOCATION.--Lat 43°26'33", long 106°11'52", in NW¼NE¼NE¼ sec.15, T.40 N., R.78 W., Hydrologic Unit 10090204. Owner: Town of Edgerton.
AQUIFER.--Mesaverde (?) Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 7 in (18 cm), depth 317 ft (96.6 m), cased.
DATUM.--Altitude of land-surface datum is about 5,080 ft (1,548 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above land-surface datum.
PERIOD OF RECORD.--April 1965 to current year.
REVISED RECORDS.--WDR WY-79-1: 1965 (highest water level).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 72.89 ft (22.22 m) below land-surface datum, Aug. 12, 1965; lowest, 82.22 ft (25.06 m) below land-surface datum, Oct. 20, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
NOV 6	74.93
MAR 20	73.52

NIOBRARA COUNTY

423940104031201. Local number, 31N 060W 15da01.
LOCATION.--Lat 42°39'40", long 104°03'12", in NE¼SE¼ sec.15, T.31 N., R.60 W., Hydrologic Unit 10150002. Owner: U.S. Geological Survey.
AQUIFER.--Arikaree Formation.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.5 in (3.8 cm), depth 110 ft (33.5 m), cased.
DATUM.--Altitude of land-surface datum is about 4,740 ft (1,445 m). Measuring point: Top of casing, 3.90 ft (1.19 m) above land-surface datum.
PERIOD OF RECORD.--September 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.28 ft (10.75 m) below land-surface datum, Mar. 6, 1980; lowest, 37.05 ft (11.29 m) below land-surface datum, Oct. 13, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
NOV 7	36.57
MAR 6	35.28

424232104261001. Local number, 32N 063W 33bbb01.
LOCATION.--Lat 42°42'32", long 104°26'10", in NW¼NW¼NW¼ sec.33, T.32 N., R.63 W., Hydrologic Unit 10150002. Owner: Earl Quigley.
AQUIFER.--Sandstone of Arikaree Formation.
WELL CHARACTERISTICS.--Drilled test hole for irrigation water-table well, diameter 6 in (15 cm), depth 205 ft (62.5 m), cased to 10 ft (3 m).
DATUM.--Altitude of land-surface datum is about 4,990 ft (1,521 m). Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--November 1957, May 1960 to current year.
REVISED RECORDS.--WDR WY-78-1: (water level).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 40.25 ft (12.27 m) below land-surface datum, June 26, 1972; lowest, 42.48 ft (12.95 m) below land-surface datum, Dec. 15, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL
NOV 6	41.92
MAR 7	41.76

PLATTE COUNTY

415730104585601. Local number, 23N 068W 15ddd01.
LOCATION.--Lat 41°57'30", long 104°58'56", in SE¼SE¼SE¼ sec.15, T.23 N., R.68 W., Hydrologic Unit 10180011. Owner: U.S. Bureau of Reclamation.
AQUIFER.--Arikaree Formation.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.75 in (4 cm), depth 602 ft (183.5 m), cased to 232 ft (70.7 m).
DATUM.--Altitude of land-surface datum is 5,087.8 ft (1,550.8 m). Measuring point: Top of casing, 2.90 ft (0.88 m) above land-surface datum.
PERIOD OF RECORD.--December 1958 to December 1970, September 1972, March 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.15 ft (15.90 m) below land-surface datum, Sept. 13, 1960; lowest, 71.19 ft (21.70 m) below land-surface datum, June 19, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	69.14	MAR 19	69.70	JUL 28	70.32
DEC 19	69.05	MAY 22	70.48	AUG 28	69.68
FEB 6	69.33	JUN 24	70.89	SEP 24	69.28

PLATTE COUNTY--Continued

420441104585801. Local number, 24N 068W 03dad01.
LOCATION.--Lat 42°04'41", long 104°58'58", in SE¼NE¼SE¼ sec.3, T.24 N., R.68 W., Hydrologic Unit 10180011. Owner: U.S. Bureau of Reclamation.
AQUIFER.--Arikaree Formation.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 2 in (5 cm), depth 600 ft (182.9 m), cased, screened.
DATUM.--Altitude of land-surface datum is 4,713.07 ft (1,436.54 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--October 1958 to December 1970, September 1972, March 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.86 ft (3.61 m) below land-surface datum, Sept. 19, 1972; lowest, 17.36 ft (5.29 m) below land-surface datum, Oct. 12, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	13.97	FEB 6	13.46	APR 25	13.32	JUN 24	13.02	AUG 28	13.34
DEC 19	13.61	MAR 19	13.14	MAY 22	12.20	JUL 28	13.08	SEP 24	13.33

SHERIDAN COUNTY

443915106352202. Local number, 54N 081W 14bc02.
LOCATION.--Lat 44°39'15", long 106°35'22", in SW¼NW¼ sec.14, T.54 N., R.81 W., Hydrologic Unit 10090206. Owner: Ulm School.
AQUIFER.--Coal of Wasatch Formation.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in (10 cm), depth 121 ft (36.9 m). Casing information not available.
DATUM.--Altitude of land-surface datum is about 4,500 ft (1,372 m). Measuring point: Hole in plate over casing, 1.30 ft (0.40 m) above land-surface datum.
PERIOD OF RECORD.--June 1961 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 54.57 ft (16.63 m) below land-surface datum, May 7, 1979; lowest, 64.00 ft (19.51 m) below land-surface datum, July 18, 1973.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 4	55.90	SEP 5	56.32
MAY 1	55.32		

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)	HARD-NESS (MG/L AS CACO3)
		CAMPBELL COUNTY							
440344105335801	47N 072W 07CBC01	124WSTC	GW	79-10-24	1130	1590	8.8	11.0	160
		124WSTC	GW	80-05-09	1320	1800	8.7	12.0	230
440346105334901	47N 072W 07CBD01	124WSTC	GW	79-10-23	1630	1800	7.0	11.3	390
		124WSTC	GW	80-05-08	0940	1380	7.7	11.2	330
440346105334903	47N 072W 07CBD03	124WSTC	GW	79-10-24	0930	1470	8.0	11.1	210
		124WSTC	GW	80-05-10	1000	1500	7.7	10.6	280
440346105334904	47N 072W 07CBD04	124WSTC	GW	79-10-23	1700	1780	7.4	12.5	280
		124WSTC	GW	80-05-08	1015	1580	7.5	13.0	200
440346105334905	47N 072W 07CBD05	124WSTC	GW	79-10-24	0900	1880	7.4	14.4	450
		124WSTC	GW	80-05-10	1100	1600	7.3	12.4	350
440346105334914	47N 072W 07CBD14	124WSTC	GW	79-10-24	1030	1810	7.4	12.5	690
		124WSTC	GW	80-05-08	1315	1650	7.4	12.7	530
440346105334915	47N 072W 07CBD15	124WSTC	GW	79-10-24	1100	1800	7.4	12.6	680
		124WSTC	GW	80-05-10	1120	1600	7.2	12.0	600
440346105334923	47N 072W 07CBD23	124WSTC	GW	79-10-24	1000	1980	7.3	12.4	770
		124WSTC	GW	80-05-08	1100	1750	7.5	12.2	700
440346105334928	47N 072W 07CBD28	124WSTC	GW	79-10-23	1105	980	8.6	26.9	63
		124WSTC	GW	80-05-07	1645	950	7.8	25.2	68
440346105334930	47N 072W 07CBD30	124WSTC	GW	79-10-23	1145	1100	7.6	16.9	110
		124WSTC	GW	80-05-07	1445	1060	7.6	17.5	96
440346105334931	47N 072W 07CBD31	124WSTC	GW	80-05-07	1420	1400	7.6	12.2	160
440346105334932	47N 072W 07CBD32	124WSTC	GW	79-10-23	1445	1600	7.2	--	250
		124WSTC	GW	80-05-10	0915	1480	7.4	10.3	220
440346105334936	47N 072W 07CBD36	124WSTC	GW	79-10-23	1005	1050	8.7	28.1	66
		124WSTC	GW	80-05-07	1720	850	8.7	25.5	55
440346105334937	47N 072W 07CBD37	124WSTC	GW	79-10-23	1300	1350	7.1	24.4	420
		124WSTC	GW	80-03-07	1130	1650	6.9	24.2	340
		124WSTC	GW	80-05-07	1515	1150	7.0	24.5	340
		124WSTC	GW	80-08-12	1100	1200	6.7	23.8	350
440346105334938	47N 072W 07CBD38	124WSTC	GW	79-10-23	1330	1330	7.5	12.0	150
		124WSTC	GW	79-10-23	1400	1600	7.1	12.0	680
		124WSTC	GW	80-03-07	1100	1980	7.1	11.6	610
		124WSTC	GW	80-05-07	1340	1400	7.1	12.2	570
440346105334939	47N 072W 07CBD39	124WSTC	GW	79-10-23	1430	1500	7.0	10.5	680
		124WSTC	GW	80-03-07	1030	1450	7.1	10.3	490
		124WSTC	GW	80-05-07	1320	1300	7.0	11.0	510
		124WSTC	GW	80-08-12	1000	1150	6.8	11.1	520
440346105334940	47N 072W 07CBD40	124WSTC	GW	79-10-23	1545	1140	7.1	11.4	130
		124WSTC	GW	80-05-07	1010	1150	7.6	11.5	140
440346105334941	47N 072W 07CBD41	124WSTC	GW	79-10-23	1515	1690	6.8	10.3	860
		124WSTC	GW	80-01-25	1142	1470	7.5	8.6	780
		124WSTC	GW	80-05-07	0915	1350	6.7	10.5	730
		124WSTC	GW	80-08-12	0830	1230	6.8	10.9	710
440346105334942	47N 072W 07CBD42	124WSTC	GW	80-03-07	1230	2140	6.6	18.0	1100
		124WSTC	GW	80-05-08	1615	1550	6.5	22.1	1000
		124WSTC	GW	80-08-15	1300	1740	6.4	18.0	1000
440346105334943	47N 072W 07CBD43	124WSTC	GW	80-03-07	1240	2160	7.0	14.2	1100
		124WSTC	GW	80-08-15	1400	1820	6.5	16.0	1200
440346105334944	47N 072W 07CBD44	124WSTC	GW	80-03-07	1250	1910	6.7	22.0	930
		124WSTC	GW	80-05-08	1715	1550	6.5	25.3	990
		124WSTC	GW	80-08-15	1200	1740	6.3	21.0	1000
440346105334945	47N 072W 07CBD45	124WSTC	GW	80-08-13	1500	1080	6.8	13.8	690
440337105335201	47N 072W 07CCA01	124WSTC	GW	79-12-06	1200	4020	6.4	11.6	1200
		124WSTC	GW	80-01-23	1200	3100	6.8	12.8	1100
		124WSTC	GW	80-03-07	1430	4900	6.6	14.5	1200
		124WSTC	GW	80-05-05	1600	3200	6.7	17.0	1000
		124WSTC	GW	80-08-13	1000	2860	6.3	19.1	830
440337105335203	47N 072W 07CCA03	124WSTC	GW	79-12-05	1030	2330	7.3	11.0	520
		124WSTC	GW	80-01-23	1537	2280	7.4	11.5	520
		124WSTC	GW	80-03-08	0900	2580	7.5	16.2	510

1/ GEOLOGICAL UNIT

111ALVM	Holocene Alluvium	112GLCL	Glacial Deposits	331MDSN	Madison Limestone
111LCTN	Lacustrine Deposits	124WSTC	Wasatch Formation	337PHSP	Pahasapa Limestone

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

CAMPBELL COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE (MG/L AS HCO3)	CAR-BONATE (MG/L AS CO3)	ALKA-LINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)
440344105335801	79-10-24	0	31	20	350	12	9.0	180	44	220	.8
	80-05-09	0	64	18	350	10	7.1	290	8	250	.2
440346105334901	79-10-23	0	110	27	340	7.5	9.1	760	0	620	.2
	80-05-08	0	85	28	350	8.4	8.0	590	0	480	1.7
440346105334903	79-10-24	0	48	22	270	8.1	10	330	0	270	1.1
	80-05-10	0	73	24	300	7.8	7.2	460	0	380	.8
440346105334904	79-10-23	0	74	23	350	9.1	9.6	710	0	582	.8
	80-05-08	0	51	17	320	9.9	8.3	760	0	623	2.6
440346105334905	79-10-24	0	120	36	330	6.8	13	740	0	610	.2
	80-05-10	0	100	25	320	7.4	11	800	0	660	.3
440346105334914	79-10-24	47	140	82	250	4.2	19	780	0	640	9.5
	80-05-08	0	130	49	220	4.2	16	860	0	710	7.5
440346105334915	79-10-24	36	170	61	230	3.9	16	780	0	640	1.7
	80-05-10	0	160	49	220	3.9	13	860	0	705	1.6
440346105334923	79-10-24	140	200	65	210	3.3	14	770	0	630	.3
	80-05-08	0	180	60	220	3.6	14	860	0	710	.1
440346105334928	79-10-23	0	16	5.7	200	11	24	440	17	390	20
	80-05-07	0	20	4.5	220	12	22	620	0	510	3.0
440346105334930	79-10-23	0	30	7.4	240	10	12	710	0	580	4.7
	80-05-07	0	28	6.4	250	11	12	680	0	560	3.4
440346105334931	80-05-07	0	44	11	330	12	6.2	740	0	610	.2
440346105334932	79-10-23	0	71	17	330	9.1	7.7	1100	0	900	.3
	80-05-10	0	60	16	330	9.8	7.0	1050	0	861	.3
440346105334936	79-10-23	0	12	8.8	170	9.1	40	330	40	340	38
	80-05-07	0	11	6.7	150	8.8	38	380	31	360	51
440346105334937	79-10-23	0	110	36	120	2.5	9.2	870	0	714	43
	80-03-07	0	88	29	120	2.8	9.9	800	0	660	--
	80-05-07	0	88	28	120	2.9	11	730	0	600	22
	80-08-12	--	93	28	120	2.8	11	--	--	--	21
440346105334938	79-10-23	0	41	11	280	10	6.5	870	0	710	.3
	79-10-23	0	190	50	140	2.3	8.5	880	0	720	4.9
	80-03-07	0	170	46	150	2.6	7.8	860	0	710	--
	80-05-07	0	160	41	140	2.6	8.2	850	0	700	11
440346105334939	79-10-23	0	180	56	110	1.8	8.0	930	0	760	6.7
	80-03-07	0	130	41	110	2.2	6.9	830	0	680	--
	80-05-07	0	140	40	120	2.3	7.4	830	0	680	12
	80-08-12	--	140	42	110	2.1	7.6	--	--	600	12
440346105334940	79-10-23	0	35	9.2	250	9.7	5.6	800	0	660	.1
	80-05-07	0	38	11	290	11	5.0	840	0	690	.2
440346105334941	79-10-23	310	230	70	100	1.5	7.5	670	0	550	1.4
	80-01-25	260	210	62	76	1.2	5.8	630	0	520	.4
	80-05-07	230	200	55	70	1.1	6.3	600	0	490	.5
	80-08-12	--	190	57	72	1.2	5.7	--	--	--	1.0
440346105334942	80-03-07	130	290	86	34	.5	8.0	1160	0	950	--
	80-05-08	73	270	79	36	.5	7.3	1130	0	930	.6
	80-08-15	--	280	83	36	.5	7.1	--	--	--	.6
440346105334943	80-03-07	170	300	85	38	.5	11	1130	0	930	.2
	80-08-15	--	320	91	37	.5	8.5	--	--	--	1.0
440346105334944	80-03-07	0	250	75	42	.6	8.6	1160	0	950	--
	80-05-08	40	270	77	48	.7	8.4	1160	0	950	.8
	80-08-15	--	280	79	45	.6	10	--	--	--	.6
440346105334945	80-08-13	--	180	58	44	.7	6.1	--	--	--	.6
440337105335201	79-12-06	--	330	79	540	6.9	13	--	--	--	10
	80-01-23	0	310	76	520	6.9	15	1570	0	1290	12
	80-03-07	0	330	81	560	7.2	13	1860	0	1530	--
	80-05-05	0	300	67	530	7.2	13	1680	0	1380	11
	80-08-13	--	240	55	500	7.6	12	--	--	--	11
440337105335203	79-12-05	0	170	23	340	6.5	11	1060	0	870	1.2
	80-01-23	0	170	24	360	6.8	12	940	0	770	.2
	80-03-08	0	160	26	350	6.8	10	980	0	800	.6

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
CAMPBELL COUNTY--Continued											
440344105335801	79-10-24	670	8.5	.2	2.5	1220	1.66	.01	.900	1.2	--
	80-05-09	700	11	.3	5.3	1310	1.78	.02	1.900	2.4	--
440346105334901	79-10-23	490	8.9	.2	9.9	1370	1.86	.02	1.200	1.5	--
	80-05-08	530	7.2	.0	6.8	1310	1.78	.01	1.300	1.7	--
440346105334903	79-10-24	540	9.4	.1	3.0	1070	1.46	.04	1.800	2.3	--
	80-05-10	500	7.6	.2	7.8	1150	1.56	.02	1.000	1.3	--
440346105334904	79-10-23	510	8.7	.2	15	1340	--	.00	1.200	1.5	--
	80-05-08	320	9.7	.0	14	1120	--	.02	1.200	1.5	--
440346105334905	79-10-24	590	8.0	.2	19	1480	2.01	.04	2.400	3.1	--
	80-05-10	360	9.7	.2	18	1240	1.69	.01	2.200	2.8	--
440346105334914	79-10-24	540	8.8	.4	17	1440	1.96	.01	7.700	9.9	--
	80-05-08	290	12	.0	20	1160	1.58	.01	5.500	7.1	--
440346105334915	79-10-24	560	8.4	.4	17	1460	1.99	.01	4.100	5.3	--
	80-05-10	360	11	.3	20	1260	--	.02	2.700	3.5	--
440346105334923	79-10-24	650	7.8	.4	21	1560	2.12	.01	1.900	2.4	--
	80-05-08	410	9.8	.0	22	1350	1.84	.01	1.800	2.3	--
440346105334928	79-10-23	120	18	4.3	23	656	--	.04	7.600	9.8	--
	80-05-07	34	14	1.9	20	643	.87	.02	6.800	8.8	--
440346105334930	79-10-23	62	14	2.0	19	738	1.00	.00	1.900	2.4	--
	80-05-07	44	13	.3	17	707	.96	.01	2.000	2.6	--
440346105334931	80-05-07	190	11	.3	11	969	1.32	.01	.770	.99	--
440346105334932	79-10-23	110	8.5	.2	9.5	1100	1.50	.00	.860	1.1	--
	80-05-10	66	21	.3	8.9	1030	--	.01	.840	1.1	--
440346105334936	79-10-23	210	26	8.9	35	715	.97	.00	20.000	26	--
	80-05-07	67	46	9.0	37	585	.80	.02	20.000	26	--
440346105334937	79-10-23	11	21	2.8	25	804	--	.04	30.000	39	--
	80-03-07	9.5	17	3.0	29	705	.96	.34	19.000	24	.050
	80-05-07	19	16	1.8	25	670	.91	.05	35.000	45	--
	80-08-12	11	61	2.7	18	--	--	.00	1.200	1.5	--
440346105334938	79-10-23	67	12	.4	14	864	1.18	.00	.770	.99	--
	79-10-23	260	11	.2	20	1120	1.52	.00	2.700	3.5	--
	80-03-07	220	12	.5	22	1050	1.43	.01	5.600	7.2	.030
	80-05-07	120	12	.7	21	923	1.26	.01	7.100	9.1	--
440346105334939	79-10-23	200	10	.2	24	1050	1.43	.00	4.700	6.1	--
	80-03-07	15	17	.7	23	756	1.03	.01	9.900	13	.040
	80-05-07	17	14	.8	23	773	1.05	.02	10.000	13	--
	80-08-12	40	24	.8	15	--	--	.00	8.600	11	--
440346105334940	79-10-23	37	8.5	.3	8.9	750	1.02	.00	.780	1.0	--
	80-05-07	14	9.7	.3	9.6	792	1.08	.02	.760	.98	--
440346105334941	79-10-23	580	7.6	.1	31	1360	1.85	.00	1.900	2.4	--
	80-01-25	430	6.2	.1	43	1150	1.56	.00	2.600	3.3	.010
	80-05-07	360	6.5	.2	42	1040	1.41	.01	2.400	3.1	--
	80-08-12	350	7.0	.2	32	--	--	.00	2.400	3.1	--
440346105334942	80-03-07	170	3.5	.2	34	1200	1.63	.04	.300	.39	.000
	80-05-08	130	3.3	.0	28	1120	1.52	.02	.190	.24	--
	80-08-15	130	3.3	.2	19	--	--	.00	.150	.19	--
440346105334943	80-03-07	270	3.9	.2	36	1300	1.77	.10	.230	.30	.010
	80-08-15	250	3.4	.2	18	--	--	.00	.140	.18	--
440346105334944	80-03-07	76	7.3	.2	35	1070	1.46	.02	.290	.37	.000
	80-05-08	88	5.8	.0	29	1100	1.50	.01	.240	.31	--
	80-08-15	61	5.4	.2	19	--	--	.01	.230	.30	--
440346105334945	80-08-13	170	7.5	.3	13	--	--	.00	.780	1.0	--
440337105335201	79-12-06	800	16	.1	17	--	--	.03	7.900	10	.120
	80-01-23	730	26	.2	17	2470	3.36	.00	19.000	24	.040
	80-03-07	940	14	.1	23	2880	3.92	.01	7.800	10	.040
	80-05-05	650	16	.0	25	2430	3.30	.01	6.800	8.8	--
	80-08-13	580	22	.4	14	--	--	.00	1.200	1.5	--
440337105335203	79-12-05	340	42	.2	13	1500	2.04	.02	.650	.84	.000
	80-01-23	400	43	.2	12	1490	2.03	.00	.900	1.2	.010
	80-03-08	430	40	.2	16	1520	2.07	.00	.830	1.1	.000

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)
					CAMPBELL COUNTY--Continued						
440344105335801	79-10-24	--	--	--	60	--	--	--	<10	--	--
	80-05-09	1	--	<1	60	<1	0	0	500	0	--
440346105334901	79-10-23	--	--	--	80	--	--	--	2700	--	--
	80-05-08	1	--	<1	70	<1	0	0	2800	0	--
440346105334903	79-10-24	--	--	--	50	--	--	--	90	--	--
	80-05-10	2	--	<1	50	<1	0	0	460	0	--
440346105334904	79-10-23	--	--	--	80	--	--	--	2200	--	--
	80-05-08	1	--	<1	80	<1	0	0	520	0	--
440346105334905	79-10-24	--	--	--	100	--	--	--	2600	--	--
	80-05-10	1	--	<1	80	<1	0	0	1400	0	--
440346105334914	79-10-24	--	--	--	410	--	--	--	760	--	--
	80-05-08	1	--	<1	340	<1	0	0	1400	0	--
440346105334915	79-10-24	--	--	--	290	--	--	--	2900	--	--
	80-05-10	1	--	<1	230	<1	0	0	2500	0	--
440346105334923	79-10-24	--	--	--	370	--	--	--	8500	--	--
	80-05-08	1	--	<1	380	<1	0	0	14000	0	--
440346105334928	79-10-23	--	--	--	770	--	--	--	560	--	--
	80-05-07	2	--	<1	570	<1	0	0	420	0	--
440346105334930	79-10-23	--	--	--	270	--	--	--	990	--	--
	80-05-07	2	--	<1	280	<1	0	0	750	0	--
440346105334931	80-05-07	1	--	<1	80	<1	0	0	720	0	--
440346105334932	79-10-23	--	--	--	80	--	--	--	3300	--	--
	80-05-10	1	--	<1	70	<1	0	0	650	0	--
440346105334936	79-10-23	--	--	--	1900	--	--	--	110	--	--
	80-05-07	3	--	<1	1600	2	0	0	160	0	--
440346105334937	79-10-23	--	--	--	320	--	--	--	670	--	--
	80-03-07	3	1400	0	340	0	10	0	1900	0	100
	80-05-07	2	--	<1	420	<1	0	0	920	0	--
	80-08-12	1	--	0	370	0	10	0	1700	2	--
440346105334938	79-10-23	--	--	--	90	--	--	--	2800	--	--
	79-10-23	--	--	--	90	--	--	--	1700	--	--
	80-03-07	1	100	0	100	0	10	2	1000	0	100
	80-05-07	1	--	<1	100	<1	0	0	620	0	--
440346105334939	79-10-23	--	--	--	100	--	--	--	1200	--	--
	80-03-07	1	200	0	110	0	10	0	2700	0	100
	80-05-07	1	--	<1	100	<1	0	0	1300	0	--
	80-08-12	1	--	0	170	0	10	0	2700	2	--
440346105334940	79-10-23	--	--	--	70	--	--	--	930	--	--
	80-05-07	1	--	<1	70	<1	0	0	460	0	--
440346105334941	79-10-23	--	--	--	130	--	--	--	2100	--	--
	80-01-25	1	--	<1	150	<1	0	0	8700	0	--
	80-05-07	1	--	<1	80	<1	0	0	5200	0	--
	80-08-12	0	--	0	170	0	0	1	5400	2	--
440346105334942	80-03-07	2	200	0	80	0	10	0	1400	0	100
	80-05-08	1	--	<1	90	<1	0	0	6000	0	--
	80-08-15	2	--	0	160	0	0	1	3400	0	--
440346105334943	80-03-07	2	200	0	80	0	10	0	1100	0	100
	80-08-15	1	--	0	150	1	0	0	2300	0	--
440346105334944	80-03-07	2	200	0	160	0	10	0	1200	0	100
	80-05-08	2	--	<1	140	<1	0	0	2300	0	--
	80-08-15	1	--	10	160	0	0	0	1200	0	--
440346105334945	80-08-13	1	--	0	130	0	10	0	3700	0	--
440337105335201	79-12-06	3	--	0	120	1	10	1	1700	8	--
	80-01-23	3	--	0	200	0	0	0	920	2	--
	80-03-07	2	100	0	140	0	10	0	740	0	200
	80-05-05	2	--	0	140	0	10	0	1600	1	--
	80-08-13	1	--	0	250	0	10	0	350	1	--
440337105335203	79-12-05	1	--	0	110	0	0	2	37000	0	--
	80-01-23	0	--	0	80	0	0	0	4300	3	--
	80-03-08	0	100	0	80	0	10	0	1500	0	100

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

CAMPBELL COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
440344105335801	79-10-24	--	--	--	--	--	4.6	.77	20
	80-05-09	110	.0	2	0	<3	5.2	--	16
440346105334901	79-10-23	--	--	--	--	--	2.3	.77	0
	80-05-08	150	.0	0	0	4	2.6	.00	3
440346105334903	79-10-24	--	--	--	--	--	4.8	.00	18
	80-05-10	70	.0	0	0	<3	13	.00	0
440346105334904	79-10-23	--	--	--	--	--	4.0	.02	6
	80-05-08	100	.0	0	0	6	6.6	--	8
440346105334905	79-10-24	--	--	--	--	--	10	.00	3
	80-05-10	250	.0	0	0	70	15	.00	5
440346105334914	79-10-24	--	--	--	--	--	--	.02	380
	80-05-08	210	.1	0	0	8	13	--	210
440346105334915	79-10-24	--	--	--	--	--	11	6.9	28
	80-05-10	280	.0	0	0	<3	19	.00	42
440346105334923	79-10-24	--	--	--	--	--	5.4	.01	2
	80-05-08	670	.0	0	0	10	34	--	3
440346105334928	79-10-23	--	--	--	--	--	220	.09	500
	80-05-07	70	.2	2	0	<3	25	--	35
440346105334930	79-10-23	--	--	--	--	--	18	.09	200
	80-05-07	130	.0	2	0	<3	16	--	85
440346105334931	80-05-07	130	.0	2	0	<3	14	--	8
440346105334932	79-10-23	--	--	--	--	--	10	.00	7
	80-05-10	130	.0	2	0	5	11	.00	15
440346105334936	79-10-23	--	--	--	--	--	10	.00	100
	80-05-07	30	.2	0	0	<3	11	--	55
440346105334937	79-10-23	--	--	--	--	--	130	.09	44000
	80-03-07	100	.1	0	0	0	130	--	12000
	80-05-07	120	.1	0	0	<3	110	--	20000
	80-08-12	140	.2	3	0	10	18	.05	6000
440346105334938	79-10-23	--	--	--	--	--	8.4	.07	11
	79-10-23	--	--	--	--	--	34	.07	4300
	80-03-07	100	.2	0	0	0	47	--	4800
	80-05-07	190	.1	0	0	<3	89	.07	6500
440346105334939	79-10-23	--	--	--	--	--	44	.05	8500
	80-03-07	200	.0	0	0	0	84	--	12000
	80-05-07	210	.1	2	0	<3	120	--	30000
	80-08-12	220	.1	3	1	10	--	.06	9000
440346105334940	79-10-23	--	--	--	--	--	23	.00	0
	80-05-07	120	.0	0	0	<3	35	--	3
440346105334941	79-10-23	--	--	--	--	--	17	.00	19
	80-01-25	440	.0	0	0	4	36	.00	68
	80-05-07	400	.0	1	0	<3	37	--	56
	80-08-12	400	.0	4	0	10	60	.00	20
440346105334942	80-03-07	1500	.0	0	0	0	30	--	65
	80-05-08	1900	.0	4	0	3	26	--	190
	80-08-15	1800	.0	6	0	570	24	.00	80
440346105334943	80-03-07	1300	.0	0	0	0	27	.00	65
	80-08-15	1900	.0	8	0	850	14	.00	75
440346105334944	80-03-07	1400	.0	0	0	0	68	--	120
	80-05-08	1800	.0	4	0	4	38	--	150
	80-08-15	1600	.0	6	0	30	26	.03	51
440346105334945	80-08-13	390	.0	3	0	50	26	.01	580
440337105335201	79-12-06	230	.0	3	1	20	42	.08	4100
	80-01-23	20	.4	4	1	30	68	.14	9000
	80-03-07	200	.1	0	0	0	120	--	2000
	80-05-05	250	.0	0	0	10	40	--	2200
	80-08-13	160	.7	4	1	10	39	.09	2200
440337105335203	79-12-05	490	.0	1	0	20	33	.03	62
	80-01-23	30	.0	2	0	10	21	.06	10
	80-03-08	200	.0	0	0	0	40	.07	5

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH FIELD (UNITS)	TEMPER- ATURE, WATER (DEG C)	HARD- NESS (MG/L AS CACO3)
				CAMPBELL COUNTY--Continued					
440337105335203	47N 072W 07CCA03	124WSTC	GW	80-05-05	1500	2100	7.2	14.5	520
440337105335204	47N 072W 07CCA04	124WSTC	GW	79-12-05	1120	4020	6.4	11.6	1300
		124WSTC	GW	80-01-24	1357	4060	6.7	14.2	1300
		124WSTC	GW	80-03-08	0930	4220	6.7	16.2	1300
		124WSTC	GW	80-05-05	1530	3500	6.5	17.0	1300
		124WSTC	GW	80-08-13	1300	3520	6.4	20.3	1200
440337105335205	47N 072W 07CCA05	--	GW	80-05-09	1145	3600	6.5	24.5	1500
		124WSTC	GW	80-08-14	1400	3540	6.6	20.0	1500
440337105335206	47N 072W 07CCA06	124WSTC	GW	79-10-25	1100	1350	7.9	11.2	150
		124WSTC	GW	79-12-05	1200	1430	7.9	10.6	140
		124WSTC	GW	80-01-24	1339	1300	8.8	10.6	60
		124WSTC	GW	80-03-08	1000	1280	8.7	11.4	120
		124WSTC	GW	80-05-05	1400	1500	7.5	11.5	160
440337105335207	47N 072W 07CCA07	124WSTC	GW	79-10-25	1000	2100	6.7	10.7	450
		124WSTC	GW	79-12-05	1330	1900	7.1	10.0	430
		124WSTC	GW	80-01-24	1059	1940	7.1	11.2	530
		124WSTC	GW	80-05-05	1300	2300	6.7	11.2	500
440337105335208	47N 072W 07CCA08	124WSTC	GW	79-10-25	0900	3300	6.4	11.7	1300
		124WSTC	GW	79-12-04	1300	3240	6.7	9.9	1100
		124WSTC	GW	80-01-24	1217	3390	7.0	11.0	990
		124WSTC	GW	80-03-08	1030	3410	7.0	11.4	1000
		124WSTC	GW	80-05-05	1150	3000	6.6	11.5	990
		124WSTC	GW	80-08-13	1300	2880	6.6	11.8	920
440337105335209	47N 072W 07CCA09	124WSTC	GW	79-10-24	1530	1990	6.8	11.3	560
		124WSTC	GW	79-12-05	1430	1760	7.3	9.9	390
		124WSTC	GW	80-01-24	1012	2420	7.3	10.9	780
		124WSTC	GW	80-05-05	1050	2150	7.4	11.5	610
440337105335210	47N 072W 07CCA10	124WSTC	GW	79-10-24	1430	3050	6.7	10.8	1100
		124WSTC	GW	79-12-06	1400	3240	6.8	10.1	1000
		124WSTC	GW	80-01-25	1242	2950	7.4	9.2	1000
		124WSTC	GW	80-03-08	1100	3250	7.0	11.0	1000
		124WSTC	GW	80-05-05	1025	2900	6.5	11.2	1000
		124WSTC	GW	80-08-14	1000	2770	6.7	11.6	910
440337105335211	47N 072W 07CCA11	124WSTC	GW	79-10-24	1400	815	7.4	11.2	63
		124WSTC	GW	79-12-05	1520	870	7.8	10.3	70
		124WSTC	GW	80-01-24	0942	934	7.7	11.3	73
		124WSTC	GW	80-05-11	0920	850	7.7	11.5	69
440337105335212	47N 072W 07CCA12	124WSTC	GW	79-10-25	1400	1462	--	--	150
		124WSTC	GW	79-12-06	1230	1460	8.3	12.6	150
		124WSTC	GW	80-01-23	1350	1890	7.5	12.7	310
		124WSTC	GW	80-03-07	1400	2300	8.4	15.4	120
		124WSTC	GW	80-05-05	1615	1650	8.3	16.0	120
440337105335213	47N 072W 07CCA13	124WSTC	GW	79-10-25	1030	1350	7.3	11.5	170
		124WSTC	GW	79-12-05	1300	1850	7.7	10.4	290
		124WSTC	GW	80-01-24	1237	1900	7.4	11.1	350
		124WSTC	GW	80-05-05	1330	1680	7.0	12.0	270
440337105335214	47N 072W 07CCA14	124WSTC	GW	79-10-25	1500	2240	6.6	10.7	680
		124WSTC	GW	79-12-04	1230	2640	6.9	10.2	710
		124WSTC	GW	80-01-23	1421	2720	6.9	10.5	730
		124WSTC	GW	80-03-07	1500	3070	6.8	10.3	710
		124WSTC	GW	80-05-06	1140	2600	6.7	11.0	730
		124WSTC	GW	80-08-14	1100	2870	6.6	11.1	690
440337105335215	47N 072W 07CCA15	124WSTC	GW	79-12-05	1600	3170	7.1	12.7	960
		124WSTC	GW	80-01-23	1642	2000	7.1	23.4	750
		124WSTC	GW	80-03-07	1630	3600	7.2	31.2	610
		124WSTC	GW	80-05-06	0945	3500	7.0	17.0	1200
440337105335216	47N 072W 07CCA16	124WSTC	GW	80-03-07	1300	4000	6.8	--	1100
		124WSTC	GW	80-05-09	1010	3200	6.5	13.0	1100
440337105335217	47N 072W 07CCA17	124WSTC	GW	80-03-07	1600	4960	7.5	59.4	910
		124WSTC	GW	80-05-06	1030	4100	8.0	67.0	1100
440337105335218	47N 072W 07CCA18	124WSTC	GW	80-05-06	1330	1600	8.2	14.0	170
		124WSTC	GW	80-08-15	1000	3450	6.4	15.0	1200
440337105335219	47N 072W 07CCA19	124WSTC	GW	80-08-15	0830	3980	7.0	48.0	1300
440317105335501	47N 072W 18BBC01	--	GW	80-05-09	1445	2400	8.6	--	500

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE (MG/L AS HCO3)	CARBONATE (MG/L AS CO3)	ALKALINITY (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)
					CAMPBELL COUNTY--Continued						
440337105335203	80-05-05	0	170	22	370	7.1	10	890	0	730	1.0
440337105335204	79-12-05	--	370	92	570	6.9	12	--	--	--	1.0
	80-01-24	530	390	90	550	6.5	12	1820	0	1490	3.3
	80-03-08	0	390	88	570	6.8	13	2130	0	1750	--
	80-05-05	0	390	83	560	6.7	14	1920	0	1570	5.2
	80-08-13	--	350	78	570	7.2	14	--	--	--	3.1
440337105335205	80-05-09	290	430	100	580	6.6	23	1460	0	1200	1.2
	80-08-14	--	420	110	610	6.9	25	--	--	--	.2
440337105335206	79-10-25	0	37	13	340	12	8.7	870	0	710	.3
	79-12-05	0	36	12	320	12	5.9	770	0	630	.4
	80-01-24	0	8.4	9.4	300	17	5.7	730	0	600	.4
	80-03-08	0	28	12	310	12	5.7	850	0	700	.6
	80-05-05	0	46	12	340	12	5.9	960	0	790	.7
440337105335207	79-10-25	0	120	36	400	8.2	35	1600	0	1310	4.0
	79-12-05	0	120	31	350	7.4	12	1390	0	1140	.1
	80-01-24	0	150	38	470	8.9	15	1740	0	1430	.0
	80-05-05	0	140	36	450	8.8	17	1760	0	1440	.0
440337105335208	79-10-25	57	390	88	550	6.5	16	1560	0	1280	.6
	79-12-04	0	300	80	540	7.2	20	1840	0	1510	.8
	80-01-24	0	280	71	500	6.9	12	1520	0	1250	1.2
	80-03-08	0	280	74	520	7.1	11	1630	0	1340	--
	80-05-05	0	280	70	520	7.2	11	1550	0	1270	4.0
	80-08-13	--	260	66	530	7.6	12	--	--	--	3.6
440337105335209	79-10-24	0	170	33	340	6.3	8.7	1200	0	980	.7
	79-12-05	0	120	21	290	6.4	6.5	940	0	770	1.8
	80-01-24	150	250	37	320	5.0	12	760	0	620	1.1
	80-05-05	210	180	38	350	6.2	9.6	480	0	390	4.4
440337105335210	79-10-24	0	310	87	500	6.5	12	1760	0	1440	.8
	79-12-06	0	280	79	470	6.4	11	1700	0	1390	.6
	80-01-25	0	280	80	470	6.4	12	1770	0	1450	.5
	80-03-08	0	280	78	500	6.8	11	1600	0	1310	--
	80-05-05	0	290	75	480	6.5	13	1500	0	1230	1.8
	80-08-14	--	250	70	490	7.1	11	--	--	--	.2
440337105335211	79-10-24	0	18	4.3	200	11	4.7	590	0	480	.2
	79-12-05	0	20	4.8	200	10	5.0	580	0	480	.2
	80-01-24	0	21	4.9	210	11	4.3	520	0	430	.2
	80-05-11	0	21	3.9	210	11	3.9	570	0	470	4.0
440337105335212	79-10-25	0	40	12	300	11	7.1	680	0	558	.2
	79-12-06	0	35	16	350	12	7.3	970	0	800	.6
	80-01-23	0	84	25	390	9.6	8.7	900	0	740	1.0
	80-03-07	0	15	21	390	15	8.3	860	0	710	--
	80-05-05	0	19	17	400	16	7.4	740	0	610	8.0
440337105335213	79-10-25	0	52	8.8	260	8.8	5.5	680	0	560	1.0
	79-12-05	0	92	15	310	7.9	7.4	910	0	750	.6
	80-01-24	0	110	19	360	8.3	7.9	1000	0	820	.2
	80-05-05	0	84	14	340	9.0	7.0	1000	0	820	1.1
440337105335214	79-10-25	28	200	43	420	7.0	9.9	790	0	650	.3
	79-12-04	180	210	46	440	7.2	9.3	650	0	530	.8
	80-01-23	0	210	49	450	7.3	10	890	0	730	1.7
	80-03-07	0	200	50	450	7.4	10	990	0	810	2.1
	80-05-06	0	210	49	440	7.1	9.6	1090	0	890	1.6
	80-08-14	--	200	47	430	7.1	10	--	--	--	1.0
440337105335215	79-12-05	0	300	52	500	7.0	10	1750	0	1440	3.4
	80-01-23	0	220	48	490	7.8	11	1520	0	1250	.0
	80-03-07	0	160	50	490	8.7	27	1210	0	990	.5
	80-05-06	--	390	63	500	6.2	14	--	--	--	1.8
440337105335216	80-03-07	0	310	84	560	7.3	18	1370	0	1120	--
	80-05-09	33	320	77	510	6.6	15	1320	0	1080	2.7
440337105335217	80-03-07	840	240	75	600	8.7	120	80	0	66	--
	80-05-06	1000	310	75	610	8.1	10	76	0	62	.5
440337105335218	80-05-06	8	49	12	310	10	5.5	200	0	160	.3
	80-08-15	740	340	78	540	6.9	20	--	0	430	.3
440337105335219	80-08-15	--	400	83	520	6.2	36	--	--	--	.7
440317105335501	80-05-09	200	120	49	420	8.2	8.1	340	12	300	.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
					CAMPBELL COUNTY--Continued						
440337105335203	80-05-05	500	37	.2	15	1570	2.14	.01	.830	1.1	--
440337105335204	79-12-05	800	7.2	.1	17	--	--	.02	4.800	6.2	.020
	80-01-24	810	8.4	.1	13	2360	3.21	.00	3.800	4.9	.070
	80-03-08	880	7.7	.1	21	3030	4.12	.00	2.300	3.0	.020
	80-05-05	920	7.0	.1	21	2940	4.00	.01	2.400	3.1	--
	80-08-13	820	8.0	.2	12	--	--	.00	2.200	2.8	--
440337105335205	80-05-09	1500	8.1	.1	21	3390	4.61	.02	2.900	3.7	--
	80-08-14	1600	8.5	.2	14	--	--	.00	3.400	4.4	--
440337105335206	79-10-25	66	57	.3	6.7	962	1.31	.00	.690	.88	--
	79-12-05	37	56	.2	7.8	856	1.16	.01	1.300	1.7	.010
	80-01-24	5.6	56	.2	4.0	389	.53	.00	.580	.75	.010
	80-03-08	39	43	.2	7.8	865	1.18	.00	.610	.79	.000
	80-05-05	76	37	.3	9.4	1000	1.36	.02	.920	1.2	--
440337105335207	79-10-25	41	30	.2	9.8	1480	2.01	.00	.760	.97	--
	79-12-05	2.1	22	.1	12	1340	1.82	.02	2.700	3.5	.000
	80-01-24	1.3	20	.2	14	1620	2.20	.00	1.900	2.4	.010
	80-05-05	.3	34	.2	13	1590	2.16	.04	1.400	1.8	--
440337105335208	79-10-25	1100	17	.1	15	2950	4.01	.00	1.500	1.9	--
	79-12-04	710	7.0	.2	16	2590	3.52	.03	1.600	2.1	.020
	80-01-24	740	7.4	.1	13	1630	2.22	.00	1.600	2.1	.010
	80-03-08	850	6.5	.1	16	2570	3.50	.00	1.500	1.9	.000
	80-05-05	740	7.2	.0	19	2410	3.28	.01	1.500	1.9	--
	80-08-13	700	8.3	.2	10	--	--	.00	1.400	1.8	--
440337105335209	79-10-24	260	23	.2	12	1440	1.96	.00	.570	.73	--
	79-12-05	270	33	.3	11	1230	1.67	.01	.840	1.1	.000
	80-01-24	800	21	.2	12	1470	2.00	.00	.860	1.1	6.000
	80-05-05	910	15	.0	13	1750	2.38	.01	1.000	1.3	--
440337105335210	79-10-24	750	9.6	.1	16	2560	3.48	.00	1.500	1.9	--
	79-12-06	690	6.5	.1	17	2450	3.33	.02	1.400	1.8	.010
	80-01-25	550	7.0	.2	21	2320	3.16	.00	1.500	1.9	.010
	80-03-08	820	6.1	.1	19	2520	3.43	.00	1.300	1.7	.000
	80-05-05	770	6.3	.0	18	2400	3.26	.01	1.300	1.7	--
	80-08-14	690	8.0	.2	10	--	--	.00	1.200	1.5	--
440337105335211	79-10-24	17	12	.3	8.5	556	.76	.02	.440	.57	--
	79-12-05	8.7	12	.4	8.5	546	.74	.01	.660	.85	.010
	80-01-24	22	11	.4	8.5	540	.73	.00	.510	.66	.030
	80-05-11	21	12	.2	8.6	562	.76	.02	.560	.72	--
440337105335212	79-10-25	200	52	.2	5.4	960	1.31	.00	.860	1.1	--
	79-12-06	100	39	.2	7.5	1030	1.40	.01	.480	.62	.050
	80-01-23	280	41	.2	12	1290	1.75	.00	1.100	1.4	.010
	80-03-07	200	40	.2	7.5	1110	1.51	.02	1.200	1.5	.010
	80-05-05	290	37	.0	11	1150	1.56	.01	1.000	1.3	--
440337105335213	79-10-25	110	70	.3	9.0	852	1.16	.00	.630	.81	--
	79-12-05	150	71	.2	11	1110	1.51	.01	.750	.97	.040
	80-01-24	140	62	.2	11	1210	1.65	.00	.950	1.2	.010
	80-05-05	110	62	.2	10	1120	1.52	.02	.850	1.1	--
440337105335214	79-10-25	870	8.1	.2	12	1950	2.65	.00	1.100	1.4	--
	79-12-04	800	13	.2	13	1850	2.52	.01	.130	.17	.010
	80-01-23	750	7.6	.2	12	1930	2.62	.00	1.300	1.7	.020
	80-03-07	830	7.1	.1	15	2050	2.79	.00	1.200	1.5	.050
	80-05-06	730	7.0	.3	16	2000	2.72	.01	1.200	1.5	--
	80-08-14	770	8.3	.2	8.6	--	--	.00	1.300	1.7	--
440337105335215	79-12-05	550	33	.2	17	2380	3.24	.02	1.300	1.7	.020
	80-01-23	420	34	.1	19	2020	2.75	.00	.950	1.2	.010
	80-03-07	660	36	.2	21	2060	2.80	.00	1.100	1.4	.000
	80-05-06	920	37	.1	26	--	--	.01	1.900	2.4	--
440337105335216	80-03-07	1100	43	.1	17	2810	3.82	.01	2.100	2.7	.000
	80-05-09	970	29	.4	24	2600	3.54	.01	1.800	2.3	--
440337105335217	80-03-07	2200	95	2.3	16	3400	4.62	.09	22.000	28	.000
	80-05-06	2200	75	2.3	11	3340	4.54	.02	18.000	23	--
440337105335218	80-05-06	640	12	.2	8.5	1140	1.55	.02	.770	.99	--
	80-08-15	1200	8.5	.2	12	2460	3.35	.07	1.800	2.3	--
440337105335219	80-08-15	1800	36	.4	29	--	--	.01	8.000	10	--
440317105335501	80-05-09	1100	10	.3	8.0	1900	2.58	.01	.090	.12	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)
					CAMPBELL COUNTY--Continued						
440337105335203	80-05-05	1	--	0	70	0	10	0	3200	0	--
440337105335204	79-12-05	5	--	0	110	3	0	2	1600	3	--
	80-01-24	3	--	0	120	0	10	0	2500	0	--
	80-03-08	2	100	0	130	0	10	0	4800	0	200
	80-05-05	3	--	0	130	0	10	0	2300	0	--
	80-08-13	2	--	0	210	0	10	0	1000	0	--
440337105335205	80-05-09	6	--	0	140	0	0	0	6800	0	--
	80-08-14	4	--	0	220	0	10	0	80	0	--
440337105335206	79-10-25	1	--	<1	70	<1	0	0	3700	0	40
	79-12-05	0	--	<1	60	<1	0	0	1000	4	--
	80-01-24	1	--	<1	60	<1	0	0	30	3	--
	80-03-08	0	400	0	60	0	0	0	40	0	100
	80-05-05	1	--	<1	60	<1	0	0	850	0	--
440337105335207	79-10-25	1	--	0	160	0	0	0	16000	0	100
	79-12-05	2	--	0	180	0	0	1	100000	1	--
	80-01-24	2	--	<1	140	<1	0	0	48000	1	--
	80-05-05	3	--	0	130	0	0	0	33000	0	--
440337105335208	79-10-25	2	--	0	110	0	8	0	8100	0	120
	79-12-04	2	--	0	100	0	0	1	5600	0	--
	80-01-24	2	--	0	90	0	0	0	8400	2	--
	80-03-08	2	200	0	80	0	10	0	5000	0	200
	80-05-05	3	--	0	80	0	0	0	2800	2	--
	80-08-13	1	--	0	160	0	10	0	1600	1	--
440337105335209	79-10-24	--	--	--	90	--	--	--	2100	--	--
	79-12-05	0	--	<1	70	<1	0	3	4300	0	--
	80-01-24	1	--	0	80	0	0	0	2600	3	--
	80-05-05	1	--	0	60	0	0	0	520	1	--
440337105335210	79-10-24	--	--	--	100	--	--	--	3700	--	--
	79-12-06	3	--	0	100	1	0	2	52000	6	--
	80-01-25	3	--	0	90	0	0	1	29000	0	--
	80-03-08	2	200	0	80	0	10	0	15000	0	100
	80-05-05	3	--	0	80	0	0	0	6000	1	--
	80-08-14	1	--	0	150	0	10	0	3400	0	--
440337105335211	79-10-24	--	--	--	60	--	--	--	380	--	--
	79-12-05	0	--	<1	60	<1	0	1	840	0	--
	80-01-24	1	--	<1	540	<1	0	0	470	3	--
	80-05-11	1	--	<1	60	<1	0	0	580	0	--
440337105335212	79-10-25	1	--	<1	70	<1	0	0	7900	0	40
	79-12-06	0	--	<1	60	<1	0	0	280	0	--
	80-01-23	1	--	<1	70	<1	0	0	4000	3	--
	80-03-07	1	100	0	70	0	0	2	100	0	100
	80-05-05	1	--	<1	60	<1	0	0	70	0	--
440337105335213	79-10-25	1	--	<1	70	<1	0	0	850	0	30
	79-12-05	0	--	<1	70	<1	0	0	1300	5	--
	80-01-24	1	--	<1	70	<1	0	0	2100	0	--
	80-05-05	1	--	<1	70	<1	0	0	930	0	--
440337105335214	79-10-25	1	--	0	70	0	4	0	1300	0	70
	79-12-04	1	--	0	60	1	0	0	1600	2	--
	80-01-23	1	--	0	60	0	0	0	1200	1	--
	80-03-07	1	0	0	70	0	10	0	1300	0	100
	80-05-06	1	--	0	90	0	0	0	1300	0	--
	80-08-14	1	--	0	140	0	10	0	1300	0	--
440337105335215	79-12-05	1	--	0	110	1	0	0	48000	5	--
	80-01-23	1	--	<1	100	<1	0	2	24000	2	--
	80-03-07	0	0	0	140	0	0	0	17000	0	200
	80-05-06	1	--	0	100	0	10	0	30000	0	--
440337105335216	80-03-07	3	100	0	90	0	10	1	1700	0	200
	80-05-09	1	--	0	100	0	0	0	4100	0	--
440337105335217	80-03-07	2	100	0	4400	0	10	1	30	0	700
	80-05-06	1	--	0	4300	0	10	0	50	0	--
440337105335218	80-05-06	1	--	<1	10	<1	0	0	40	0	--
	80-08-15	3	--	10	190	0	10	0	4100	0	--
440337105335219	80-08-15	9	--	10	1900	0	0	0	40	0	--
440317105335501	80-05-09	1	--	0	90	0	0	1	30	0	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS (UG/L)
				CAMPBELL COUNTY--Continued					
440337105335203	80-05-05	230	.0	0	0	10	26	--	15
440337105335204	79-12-05	290	.4	13	1	20	30	.00	2400
	80-01-24	40	.0	4	1	30	64	.05	1400
	80-03-08	300	.0	0	0	0	160	--	640
	80-05-05	410	.1	2	0	10	32	--	950
	80-08-13	330	.7	5	0	50	60	.04	430
440337105335205	80-05-09	1500	.0	89	0	280	55	--	43
	80-08-14	1600	.1	70	0	140	17	.00	0
440337105335206	79-10-25	300	.0	0	0	<3	21	.03	26
	79-12-05	150	.1	0	0	<3	13	.02	7
	80-01-24	70	.0	0	0	<3	8.1	.01	8
	80-03-08	0	.0	0	0	0	22	.03	5
	80-05-05	130	.1	0	0	<3	6.4	--	30
440337105335207	79-10-25	250	.0	2	0	10	40	.00	12
	79-12-05	690	.0	2	0	10	45	.01	19
	80-01-24	610	.0	0	0	40	55	.00	30
	80-05-05	440	.0	0	0	20	37	--	40
440337105335208	79-10-25	460	.2	74	3	40	29	.01	190
	79-12-04	250	.1	5	0	30	41	.01	10
	80-01-24	30	.0	2	0	20	20	.02	290
	80-03-08	100	.0	0	0	0	42	--	160
	80-05-05	240	.0	0	0	40	53	--	620
	80-08-13	210	.5	3	0	10	15	.01	350
440337105335209	79-10-24	--	--	--	--	--	23	.00	2
	79-12-05	420	.0	1	0	11000	13	.00	6
	80-01-24	40	.0	0	0	17000	16	.00	9
	80-05-05	370	.0	0	0	840	13	.00	6
440337105335210	79-10-24	--	--	--	--	--	9.6	.02	140
	79-12-06	320	.0	4	0	10	28	.09	100
	80-01-25	360	.0	0	0	40	55	.02	340
	80-03-08	200	.0	0	0	0	110	--	180
	80-05-05	320	.0	0	0	20	32	--	44
	80-08-14	240	.1	2	0	10	46	.01	200
440337105335211	79-10-24	--	--	--	--	--	6.8	.00	2
	79-12-05	130	.0	2	0	<3	12	.06	0
	80-01-24	110	.0	0	0	<3	6.1	.00	0
	80-05-11	100	.0	2	0	5	26	.00	2
440337105335212	79-10-25	260	.0	0	0	60	8.7	.07	21
	79-12-06	110	.0	0	0	<3	28	.02	8
	80-01-23	220	.0	0	0	5	26	.13	34
	80-03-07	0	.0	0	0	0	17	--	18
	80-05-05	70	.0	1	0	<3	13	--	7
440337105335213	79-10-25	150	.0	0	0	4	13	.00	2
	79-12-05	200	.0	0	0	10	15	.01	3
	80-01-24	210	.0	0	0	<3	24	.02	6
	80-05-05	170	.1	2	0	<3	10	.02	20
440337105335214	79-10-25	400	.1	5	1	10	35	.00	500
	79-12-04	420	.1	3	0	20	31	.00	160
	80-01-23	40	.0	3	0	30	20	.01	260
	80-03-07	300	.0	0	0	0	39	.00	170
	80-05-06	390	.1	1	0	10	17	.00	130
	80-08-14	350	.0	5	0	240	59	.00	46
440337105335215	79-12-05	480	.0	2	0	20	45	.07	230
	80-01-23	260	.0	4	0	<3	52	.07	420
	80-03-07	100	.0	0	0	0	32	.06	240
	80-05-06	780	.0	0	0	20	14	--	220
440337105335216	80-03-07	500	.2	290	0	0	26	--	0
	80-05-09	620	.1	150	0	10	35	--	16
440337105335217	80-03-07	1900	.0	0	1	0	15	--	40
	80-05-06	1100	.0	2	1	30	7.4	--	60
440337105335218	80-05-06	130	.0	2	0	<3	6.5	--	4
	80-08-15	690	.3	58	0	260	17	.00	9
440337105335219	80-08-15	2200	.0	6	0	70	64	.26	15
440317105335501	80-05-09	240	.0	2	0	10	16	.00	3

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	SAMP- LING DEPTH (FT)	FLOW RATE, INSTAN- TANEOUS (GPM)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH FIELD (UNITS)
		CONVERSE COUNTY							
430458105301901	36N 072W 21BAD01	--	GW	80-07-01	0830	--	--	505	8.2
430355105291101	36N 072W 27BDB01	--	SP	80-07-01	0945	--	--	4800	--
430357105292201	36N 072W 27BDB02	--	GW	80-07-01	0915	80.0	--	4000	5.6
430414105372001	36N 073W 21DCC01	--	GW	80-05-08	0845	--	--	925	7.6
430414105372002	36N 073W 21DCC02	--	GW	80-05-08	0900	--	--	1050	7.8
430354105343601	36N 073W 26ADA01	--	GW	80-05-08	0815	--	--	810	7.6
430409105361501	36N 073W 27ABB01	--	GW	80-05-07	1615	--	--	810	7.6
430246105343501	36N 073W 35DAD01	--	GW	80-05-07	1645	--	--	950	7.6
430652105442001	36N 074W 04DCD01	--	SP	80-05-06	1600	--	30	870	8.9
430401105420901	36N 074W 26BA 01	--	GW	80-05-28	1600	--	--	1000	7.6
430314105405201	36N 074W 36ABB01	--	GW	80-05-08	1530	--	--	550	7.7
431154105364201	37N 073W 10BAC01	--	GW	80-05-28	1415	--	--	500	8.1
431052105345301	37N 073W 14ADA01	--	GW	80-05-08	1345	--	--	640	8.0
431212105422201	37N 074W 02DCA01	--	GW	80-07-01	1440	--	E.50	613	7.7
431609105355901	38N 073W 14BCB01	--	GW	80-05-09	0900	--	--	1750	7.6
431358105364801	38N 073W 27CDB01	--	GW	80-05-09	1015	--	--	570	7.9
431308105382401	38N 073W 33CCB01	--	GW	80-05-29	0930	300	--	650	8.1
432000105354201	39N 073W 23CCA01	--	GW	80-05-07	1045	--	--	1950	8.2
431956105351101	39N 073W 23DCD01	--	GW	80-05-07	1130	--	--	560	7.9
432018105341901	39N 073W 24BDD01	--	GW	80-05-07	1015	--	--	680	8.2

E-Estimate.

STATION NUMBER	DATE OF SAMPLE	TEMPER- ATURE, WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
430458105301901	80-07-01	16.0	43	0	13	2.6	97	6.4	2.9	130	120
430355105291101	80-07-01	14.5	2700	2200	740	210	210	1.8	4.1	490	2100
430357105292201	80-07-01	13.0	2200	2100	500	220	220	2.1	11	22	2000
430414105372001	80-05-08	6.0	330	220	100	20	11	.3	6.0	110	110
430414105372002	80-05-08	10.0	260	170	83	13	81	2.2	7.7	94	300
430354105343601	80-05-08	10.0	260	0	78	17	8.8	.2	2.7	280	11
430409105361501	80-05-07	10.0	250	47	71	17	50	1.4	5.8	200	110
430246105343501	80-05-07	10.0	310	0	84	25	49	1.2	1.1	320	100
430652105442001	80-05-06	15.0	470	150	110	48	21	.4	2.2	320	160
430401105420901	80-05-28	10.5	430	200	120	31	15	.3	1.5	230	100
430314105405201	80-05-08	12.5	170	38	46	13	9.6	.3	4.7	130	46
431154105364201	80-05-28	12.5	63	0	20	3.2	86	4.7	2.9	150	87
431052105345301	80-05-08	11.5	41	0	13	2.0	75	5.1	2.5	160	36
431212105422201	80-07-01	--	260	47	75	17	29	.8	7.9	210	110
431609105355901	80-05-09	12.0	620	460	200	30	81	1.4	9.0	160	650
431358105364801	80-05-09	14.5	130	0	39	7.4	58	2.2	4.6	160	100
431308105382401	80-05-29	12.5	89	0	28	4.6	85	3.9	3.7	170	91
432000105354201	80-05-07	12.5	1000	760	310	55	63	.9	12	240	880
431956105351101	80-05-07	--	140	0	47	6.3	60	2.2	4.7	170	110
432018105341901	80-05-07	13.0	140	0	41	9.9	84	3.1	4.7	170	140

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

CONVERSE COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS P)	PHOSPHORUS, ORTHOPHOSPHATE DISSOL. (MG/L AS PO4)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
430458105301901	80-07-01	.9	.4	9.7	326	.44	.36	--	--	170	20
430355105291101	80-07-01	230	.2	10	3800	5.17	.09	--	--	320	400
430357105292201	80-07-01	230	.1	3.0	3310	4.50	.02	.000	.00	110000	1700
430414105372001	80-05-08	24	.3	12	473	.64	28	--	--	40	10
430414105372002	80-05-08	25	.3	13	582	.79	.46	--	--	20	30
430354105343601	80-05-08	2.9	.2	11	308	.42	1.8	--	--	80	7
430409105361501	80-05-07	6.6	.3	15	420	.57	5.5	--	--	70	6
430246105343501	80-05-07	4.0	.3	10	467	.64	.15	--	--	70	110
430652105442001	80-05-06	13	.5	16	564	.77	.07	--	--	60	400
430401105420901	80-05-28	24	.2	11	516	.70	17	--	--	100	5
430314105405201	80-05-08	4.3	.4	17	228	.31	2.0	--	--	60	2
431154105364201	80-05-28	3.0	.2	11	304	.41	.07	.000	.00	90	20
431052105345301	80-05-08	3.9	.6	7.7	237	.32	.11	--	--	20	10
431212105422201	80-07-01	1.6	.3	9.5	377	E.51	.00	--	--	170	20
431609105355901	80-05-09	4.9	.1	14	1090	1.48	.12	--	--	510	130
431358105364801	80-05-09	2.4	.2	15	323	.44	.06	--	--	90	20
431308105382401	80-05-29	2.7	.2	11	329	.45	.00	--	--	490	30
432000105354201	80-05-07	11	.1	18	1490	2.03	.05	--	--	490	80
431956105351101	80-05-07	3.6	.1	16	351	.48	.02	--	--	490	40
432018105341901	80-05-07	3.5	.1	18	404	.55	.07	--	--	160	20

STATION NUMBER	DATE OF SAMPLE	SELENIUM, DISSOLVED (UG/L AS SE)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DISSOLVED (UG/L AS U)
430458105301901	80-07-01	--	<4.4	<2.3	<3.0	<2.3	.26	<.3
430355105291101	80-07-01	17	87	<22	59	<20	.50	143
430357105292201	80-07-01	0	<55	<22	<37	<20	9.9	3.5
430414105372001	80-05-08	9	12	5.9	8.2	6.0	.39	7.2
430414105372002	80-05-08	2	37	7.7	25	7.8	.27	18
430354105343601	80-05-08	3	21	5.0	14	5.0	.94	24
430409105361501	80-05-07	24	34	4.4	23	4.5	.26	27
430246105343501	80-05-07	0	81	8.0	55	8.2	.13	70
430652105442001	80-05-06	1	150	12	100	12	.28	168
430401105420901	80-05-28	31	120	12	82	11	.35	94
430314105405201	80-05-08	23	40	7.7	27	7.7	.88	31
431154105364201	80-05-28	1	<4.9	4.0	<3.3	3.8	.35	.6
431052105345301	80-05-08	0	3.4	<1.8	2.3	<1.9	.12	<.5
431212105422201	80-07-01	0	<.7	10	<.5	9.6	.89	<.5
431609105355901	80-05-09	0	57	7.7	39	7.9	3.7	24
431358105364801	80-05-09	0	<4.4	3.0	<3.0	3.1	.60	<.6
431308105382401	80-05-29	0	<5.7	3.6	<3.9	3.5	.33	.7
432000105354201	80-05-07	0	<16	<10	<11	<10	1.4	.4
431956105351101	80-05-07	0	7.6	3.6	5.2	3.6	.58	<.5
432018105341901	80-05-07	0	<4.4	4.2	<3.0	4.2	.55	<.6

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT	SITE	DATE OF SAMPLE	TIME	SAMP-LING DEPTH (FT)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)
PARK COUNTY									
443440110215201	WELL FB 3 YNP	111LCTN	GW	80-08-28	1500	50.0	385	6.9	12.0
443443110215001	WELL FB 4 YNP	111LCTN	GW	80-08-29	1530	49.0	335	6.7	13.0
443431110215001	WELL FB 9 YNP	111LCTN	GW	80-08-28	1300	51.0	225	6.9	7.0
443452110220401	WELL FB10 YNP	111LCTN	GW	80-08-29	1410	40.0	105	6.8	8.5
443435110214401	WELL FB12 YNP	111LCTN	GW	80-08-28	1530	--	285	6.9	8.0
443435110220401	WELL FB13 YNP	111LCTN	GW	80-08-28	1230	6.0	130	6.7	11.5

STATION NUMBER	DATE OF SAMPLE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
443440110215201	80-08-28	110	0	25	12	27	1.1	8.3	140	12	14
443443110215001	80-08-29	130	62	30	13	6.7	.3	5.9	66	15	19
443431110215001	80-08-28	86	4	18	10	5.5	.3	4.4	82	.9	4.5
443452110220401	80-08-29	39	6	9.8	3.6	3.6	.3	2.9	33	5.9	6.7
443435110214401	80-08-28	110	32	22	13	5.9	.2	6.4	76	6.8	58
443435110220401	80-08-28	49	0	11	5.2	4.5	.3	3.9	51	4.0	1.8

STATION NUMBER	DATE OF SAMPLE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS PO4)
443440110215201	80-08-28	1.1	41	245	.33	4.7	.050	.06	1.7	.440	1.4
443443110215001	80-08-29	.1	47	238	.32	14	.110	.14	1.2	.300	.92
443431110215001	80-08-28	.1	45	159	.22	4.8	.000	.00	1.1	.090	.28
443452110220401	80-08-29	.1	32	92	.13	1.7	.040	.05	.86	.130	.40
443435110214401	80-08-28	--	45	222	.30	4.4	--	--	--	--	--
443435110220401	80-08-28	.1	41	102	.14	.00	--	--	--	--	--

STATION NUMBER	DATE OF SAMPLE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
443440110215201	80-08-28	10	60	5.5
443443110215001	80-08-29	20	7	3.6
443431110215001	80-08-28	<10	2	2.3
443452110220401	80-08-29	30	4	1.9
443435110214401	80-08-28	20	20	--
443435110220401	80-08-28	120	20	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT	SITE	DATE OF SAMPLE	TIME	SAMP-LING DEPTH (FT)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)
				TETON COUNTY					
442324110315701	WELL GV 1 YNP	111LCTN	GW	79-11-02	1300	16.0	260	--	4.0
442323110321101	WELL GV 2 YNP	111LCTN	GW	79-11-02	1330	50.0	230	--	3.5
		111LCTN	GW	80-08-26	1610	50.0	128	6.5	6.5
442322110321001	WELL GV 3 YNP	111LCTN	GW	79-11-02	1400	50.0	275	--	4.0
442322110321002	WELL GV 3AYNP	111LCTN	GW	79-10-25	1445	38.0	240	--	6.5
		111LCTN	GW	80-08-26	1530	38.0	50	6.3	10.0
442321110321901	WELL GV 4 YNP	111LCTN	GW	79-10-25	1350	58.0	125	--	5.0
		111LCTN	GW	80-08-26	1500	58.0	135	6.7	9.0
442320110320801	WELL GV 6 YNP	111LCTN	GW	80-08-26	1430	43.0	118	7.3	9.0
442317110321601	WELL GV 7 YNP	111LCTN	GW	79-11-02	1430	105	420	--	4.5
		111LCTN	GW	80-08-30	1300	105	375	6.9	8.5
442315110321201	WELL GV 8 YNP	111LCTN	GW	80-08-30	1340	97.0	70	7.2	6.0
442316110320901	WELL GV 9 YNP	111LCTN	GW	80-08-30	1415	57.0	90	6.8	8.0
443844110522501	WELL MJ 1 YNP	111ALVM	GW	79-10-23	1440	35.0	190	--	13.0
443844110521901	WELL MJ 3 YNP	111ALVM	GW	79-10-23	1525	60.0	220	--	10.5
		111ALVM	GW	80-09-05	1400	60.0	340	6.4	14.0
443843110522101	WELL MJ 4 YNP	111ALVM	GW	79-10-23	1335	40.0	195	--	11.0
		111ALVM	GW	80-09-04	1230	40.0	160	6.7	15.0
443842110522201	WELL MJ 5 YNP	111ALVM	GW	79-10-23	1150	40.0	180	--	11.5
		111ALVM	GW	80-09-04	1415	40.0	180	6.5	13.5
443842110522101	WELL MJ 6 YNP	111ALVM	GW	79-10-23	1105	35.0	210	--	14.0
		111ALVM	GW	80-09-04	1440	35.0	205	6.4	16.0
443843110522001	WELL MJ 7 YNP	111ALVM	GW	79-10-23	1230	50.0	385	--	11.0
		111ALVM	GW	80-09-04	1310	50.0	212	6.5	16.0
442717110504601	WELL OF 1 YNP	112GLCL	GW	79-10-25	1025	29.0	105	--	15.0
442720110504101	WELL OF 2 YNP	112GLCL	GW	79-10-24	1105	48.0	220	--	14.0
		112GLCL	GW	80-09-02	1240	48.0	415	6.5	19.0
442722110504401	WELL OF 3 YNP	112GLCL	GW	79-10-24	1220	65.0	320	--	14.5
		112GLCL	GW	80-09-02	1315	65.0	390	6.5	18.5
442723110504601	WELL OF 4 YNP	112GLCL	GW	79-10-24	1400	49.0	340	--	15.0
		112GLCL	GW	80-09-02	1400	49.0	415	6.7	16.0
442724110504801	WELL OF 5 YNP	112GLCL	GW	79-10-24	1445	49.0	220	--	14.0
		112GLCL	GW	80-09-02	1445	49.0	215	5.6	14.0
442726110505001	WELL OF 6 YNP	112GLCL	GW	79-10-25	0900	36.0	305	--	13.5
		112GLCL	GW	80-09-03	1330	36.0	222	6.3	16.0
442723110505203	WELL OF 7BYNP	112GLCL	GW	79-10-25	0945	30.0	355	--	14.0
		112GLCL	GW	80-09-03	1415	30.0	290	6.2	12.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
					TETON COUNTY--Continued						
442324110315701	79-11-02	--	--	--	--	--	--	--	--	7.4	2.6
442323110321101	79-11-02	--	--	--	--	--	--	--	--	10	15
	80-08-26	38	8	11	2.6	7.2	.5	3.6	30	3.4	4.8
442322110321001	79-11-02	--	--	--	--	--	--	--	--	13	27
442322110321002	79-10-25	--	--	--	--	--	--	--	--	12	26
	80-08-26	12	0	3.8	.7	2.2	.3	1.8	16	1.2	1.7
442321110321901	79-10-25	--	--	--	--	--	--	--	--	4.3	2.9
	80-08-26	35	0	9.4	2.8	4.0	.3	3.8	43	2.1	2.0
442320110320801	80-08-26	46	0	11	4.4	3.4	.2	3.1	57	.8	3.7
442317110321601	79-11-02	--	--	--	--	--	--	--	--	17	30
	80-08-30	160	59	40	14	8.2	.3	7.9	99	19	24
442315110321201	80-08-30	26	0	6.4	2.5	2.9	.2	2.9	32	2.1	1.5
442316110320901	80-08-30	37	22	9.8	3.1	3.7	.3	3.3	15	3.9	8.7
443844110522501	79-10-23	--	--	--	--	--	--	--	--	3.1	2.3
443844110521901	79-10-23	--	--	--	--	--	--	--	--	12	21
	80-09-05	72	22	22	4.1	32	1.6	8.1	50	7.5	28
443843110522101	79-10-23	--	--	--	--	--	--	--	--	6.5	14
	80-09-04	9	0	2.9	.4	28	4.1	4.9	43	3.0	.2
443842110522201	79-10-23	--	--	--	--	--	--	--	--	7.1	5.3
	80-09-04	18	0	5.4	1.1	31	3.2	5.9	68	4.1	4.3
443842110522101	79-10-23	--	--	--	--	--	--	--	--	4.3	2.8
	80-09-04	8	0	3.1	.1	40	6.1	5.9	76	2.1	2.3
443843110522001	79-10-23	--	--	--	--	--	--	--	--	16	22
	80-09-04	32	0	9.7	2.0	27	2.1	6.3	44	7.9	17
442717110504601	79-10-25	--	--	--	--	--	--	--	--	3.7	3.1
442720110504101	79-10-24	--	--	--	--	--	--	--	--	14	15
	80-09-02	55	0	16	3.6	49	2.9	10	130	9.4	34
442722110504401	79-10-24	--	--	--	--	--	--	--	--	7.6	39
	80-09-02	19	0	6.0	.9	56	5.6	14	110	8.1	40
442723110504601	79-10-24	--	--	--	--	--	--	--	--	7.1	40
	80-09-02	41	0	13	2.1	44	3.0	11	61	14	41
442724110504801	79-10-24	--	--	--	--	--	--	--	--	14	37
	80-09-02	10	0	2.8	.7	31	4.3	5.5	11	5.8	36
442726110505001	79-10-25	--	--	--	--	--	--	--	--	4.6	42
	80-09-03	15	0	4.7	.9	35	3.9	5.3	43	4.6	22
442723110505203	79-10-25	--	--	--	--	--	--	--	--	8.1	38
	80-09-03	23	0	7.3	1.2	38	3.4	11	43	13	28

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS PO4)
TETON COUNTY--Continued											
442324110315701	79-11-02	--	--	--	--	--	--	--	--	--	--
442323110321101	79-11-02	--	--	--	--	--	--	--	--	--	--
	80-08-26	.1	29	104	.14	5.4	.020	.03	1.6	.490	1.5
442322110321001	79-11-02	--	--	--	--	--	--	--	--	--	--
442322110321002	79-10-25	--	--	--	--	--	--	--	--	--	--
	80-08-26	.0	19	45	.06	1.2	.040	.05	1.3	.250	.77
442321110321901	79-10-25	--	--	--	--	--	--	--	--	--	--
	80-08-26	.1	44	98	.13	.91	.070	.09	1.3	.170	.52
442320110320801	80-08-26	.1	37	98	.13	.15	.000	.00	.53	.020	.06
442317110321601	79-11-02	--	--	--	--	--	--	--	--	--	--
	80-08-30	.1	45	271	.37	12	.280	.36	2.0	.150	.46
442315110321201	80-08-30	.1	42	83	.11	.70	.320	.41	3.2	.210	.64
442316110320901	80-08-30	.1	32	90	.12	3.7	.080	.10	2.2	.500	1.5
443844110522501	79-10-23	--	--	--	--	--	--	--	--	--	--
443844110521901	79-10-23	--	--	--	--	--	--	--	--	--	--
	80-09-05	3.8	60	258	.35	14	.140	.18	1.3	.040	.12
443843110522101	79-10-23	--	--	--	--	--	--	--	--	--	--
	80-09-04	9.9	78	154	.21	.22	.020	.03	1.0	.130	.40
443842110522201	79-10-23	--	--	--	--	--	--	--	--	--	--
	80-09-04	8.3	65	167	.23	.32	.050	.06	1.0	.150	.46
443842110522101	79-10-23	--	--	--	--	--	--	--	--	--	--
	80-09-04	9.1	81	190	.26	.08	.080	.10	.91	.080	.25
443843110522001	79-10-23	--	--	--	--	--	--	--	--	--	--
	80-09-04	6.4	62	173	.24	1.9	.010	.01	.87	.190	.58
442717110504601	79-10-25	--	--	--	--	--	--	--	--	--	--
442720110504101	79-10-24	--	--	--	--	--	--	--	--	--	--
	80-09-02	2.3	55	259	.35	.18	3.500	4.5	4.2	9.500	29
442722110504401	79-10-24	--	--	--	--	--	--	--	--	--	--
	80-09-02	3.0	45	255	.35	3.4	5.000	6.4	5.0	2.300	7.1
442723110504601	79-10-24	--	--	--	--	--	--	--	--	--	--
	80-09-02	2.4	49	223	.30	.70	.120	.15	5.0	9.800	30
442724110504801	79-10-24	--	--	--	--	--	--	--	--	--	--
	80-09-02	1.8	51	157	.21	3.6	.480	.62	1.8	.020	.06
442726110505001	79-10-25	--	--	--	--	--	--	--	--	--	--
	80-09-03	.7	52	174	.24	4.8	.500	.64	1.9	2.300	7.1
442723110505203	79-10-25	--	--	--	--	--	--	--	--	--	--
	80-09-03	1.6	67	207	.28	2.9	3.600	4.6	4.1	2.300	7.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

STATION NUMBER	DATE OF SAMPLE	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
TETON COUNTY--Continued				
442324110315701	79-11-02	--	--	--
442323110321101	79-11-02	--	--	--
	80-08-26	20	5	2.4
442322110321001	79-11-02	--	--	--
442322110321002	79-10-25	--	--	--
	80-08-26	20	20	6.2
442321110321901	79-10-25	--	--	--
	80-08-26	10	7	3.9
442320110320801	80-08-26	20	10	2.3
442317110321601	79-11-02	--	--	--
	80-08-30	40	30	6.3
442315110321201	80-08-30	40	10	3.3
442316110320901	80-08-30	100	10	2.4
443844110522501	79-10-23	--	--	--
443844110521901	79-10-23	--	--	--
	80-09-05	30	10	4.4
443843110522101	79-10-23	--	--	--
	80-09-04	110	30	11
443842110522201	79-10-23	--	--	--
	80-09-04	50	20	3.3
443842110522101	79-10-23	--	--	--
	80-09-04	30	10	1.3
443843110522001	79-10-23	--	--	--
	80-09-04	30	30	5.3
442717110504601	79-10-25	--	--	--
442720110504101	79-10-24	--	--	--
	80-09-02	0	660	16
442722110504401	79-10-24	--	--	--
	80-09-02	360	140	8.6
442723110504601	79-10-24	--	--	--
	80-09-02	6300	770	7.9
442724110504801	79-10-24	--	--	--
	80-09-02	140	170	6.3
442726110505001	79-10-25	--	--	--
	80-09-03	40	2000	5.4
442723110505203	79-10-25	--	--	--
	80-09-03	40	660	4.8

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

WESTON COUNTY

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	SAMP-LING DEPTH (FT)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH FIELD (UNITS)	TEMPER-ATURE, WATER (DEG C)
435138104121101	45N 061W 20CA 01	337PHSP	GW	80-07-15	--	2638	505	7.4	25.0
435138104121401	45N 061W 20DCA01	331MDSN	GW	80-07-15	--	3245	615	7.7	27.0
435143104113201	45N 061W 21CBD01	331MDSN	GW	80-07-16	--	2872	560	6.8	21.0
435110104131101	45N 061W 30ADB01	331MDSN	GW	80-07-16	--	3028	590	6.8	31.0
435540104063001	46N 060W 31BA 01	337PHSP	GW	80-07-19	--	1178	460	6.9	16.2
435834104241401	46N 063W 10DCA01	331MDSN	GW	80-07-23	--	2592	480	6.8	24.5
435740104272001	46N 063W 17CBC01	337PHSP	GW	80-07-21	--	3605	475	6.9	26.5
435649104305901	46N 064W 23CCB01	331MDSN	GW	80-07-22	--	--	470	7.1	46.5
435620104412201	46N 065W 20CDD01	331MDSN	GW	80-07-18	--	8109	925	6.5	42.5
435722104374601	46N 065W 23BAD01	331MDSN	GW	80-07-21	--	7737	675	7.0	65.0

STATION NUMBER	DATE OF SAMPLE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
435138104121101	80-07-15	290	63	68	30	3.0	.1	2.3	250	53	.5
435138104121401	80-07-15	320	100	75	32	4.7	.1	2.4	230	110	.1
435143104113201	80-07-16	300	83	70	31	3.3	.1	1.9	230	70	.9
435110104131101	80-07-16	300	93	70	31	3.9	.1	6.5	220	100	1.4
435540104063001	80-07-19	250	12	58	26	2.6	.1	1.7	250	9.3	.7
435834104241401	80-07-23	260	22	62	26	2.0	.1	1.3	240	29	.2
435740104272001	80-07-21	260	22	62	26	1.8	.0	1.6	240	20	.5
435649104305901	80-07-22	250	50	57	26	2.5	.1	1.7	220	31	4.2
435620104412201	80-07-18	360	180	96	28	59	1.4	2.7	180	260	52
435722104374601	80-07-21	310	130	72	31	3.1	.1	1.9	190	120	1.5

STATION NUMBER	DATE OF SAMPLE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	IODIDE, DIS-SOLVED (MG/L AS I)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
435138104121101	80-07-15	.4	.0	.00	9.1	299	305	.41	--	--	--
435138104121401	80-07-15	.4	.0	.00	12	398	370	.50	.00	.00	.000
435143104113201	80-07-16	.5	.0	.00	12	298	322	.44	--	--	--
435110104131101	80-07-16	.5	.0	.00	13	371	353	.48	--	--	--
435540104063001	80-07-19	.3	.0	.00	13	263	256	.35	--	--	--
435834104241401	80-07-23	.4	.0	.00	14	281	280	.38	--	--	--
435740104272001	80-07-21	.4	.0	.00	12	272	269	.37	--	--	--
435649104305901	80-07-22	.5	.0	.00	19	248	263	.36	--	--	--
435620104412201	80-07-18	.0	.2	.03	39	668	654	.89	--	--	--
435722104374601	80-07-21	1.2	.0	.00	24	386	364	.50	--	--	--

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS NO2)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)
435138104121101	80-07-15	--	--	70	10	40	4.0
435138104121401	80-07-15	.00	.00	50	>10	630	4.0
435143104113201	80-07-16	--	--	40	>10	520	4.0
435110104131101	80-07-16	--	--	40	>10	670	6.0
435540104063001	80-07-19	--	--	40	10	210	7.0
435834104241401	80-07-23	--	--	40	>10	280	3.0
435740104272001	80-07-21	--	--	30	>10	260	4.0
435649104305901	80-07-22	--	--	20	>10	440	4.0
435620104412201	80-07-18	--	--	190	580	--	1.0
435722104374601	80-07-21	--	--	30	>10	1200	2.0

ANALYSES OF SAMPLES COLLECTED AT PRECIPITATION SITES IN WYOMING

A precipitation-monitoring network was set up in July of the 1980 water year to monitor the effects of the May 18, 1980, eruption of Mt. St. Helens on the quality of precipitation in the area impacted by the ashfall associated with the eruption. Precipitation was collected during each storm event at two selected sites and analyzed for pH, specific conductance, and trace metals.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

YELLOWSTONE RIVER BASIN

440055107563401 WORLAND METEOROLOGICAL STATION, WORLAND, WY (LAT 44 00 55 LONG 107 56 34)

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH LAB (UNITS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	SILICA, DISSOLVED (MG/L AS SIO2)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)
JUL										
18-20	--	--	6	2.0	.19	.7	.1	.10	20	<1
25-26	--	--	32	9.9	1.7	3.4	.3	.87	40	<1
30-31	--	--	10	3.2	.39	.4	.1	.24	10	<1
AUG										
07-09	54	6.9	14	4.0	.95	.8	.1	.94	20	<1
15-16	13	5.5	2	.7	.068	.3	.1	.04	3	<1
SEP										
15-16	10	5.7	--	.4	<.004	<.2	--	.11	4	<1

DATE	CADMIUM DISSOLVED (UG/L AS CD)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
JUL											
18-20	<1	<3	<10	13	<10	<4	23	<10	7	<6.0	20
25-26	3	<3	<10	14	<10	<4	23	<10	46	<6.0	15
30-31	<1	<3	<10	<10	<10	<4	26	<10	10	<6.0	31
AUG											
07-09	2	<3	25	45	15	<4	48	<10	14	<6.0	15
15-16	2	<3	<10	<10	10	<4	5	<10	4	<6.0	<3
SEP											
15-16	<1	<3	<10	<10	<10	<4	5	<10	2	<6.0	4

DATE	ION CHROM BROMIDE	ION CHROM CHLORIDE	ION CHROM FLUORIDE	ION CHROM NITRATE	ION CHROM PHOSPHATE	ION CHROM SULFATE
JUL						
18-20	<.10	1.50	.94	.20	<.10	2.90
AUG						
07-09	<.05	2.00	1.10	.30	<.03	4.40
15-16	<.05	.17	.03	.07	<.01	1.60
SEP						
15-16	<.05	.10	.24	.01	<.01	.80

WATER-QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

YELLOWSTONE RIVER BASIN

442043106442801 BUFFALO METEOROLOGICAL STATION NO. 1, BUFFALO, WY (LAT 44 20 43 LONG 106 44 28)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH LAB (UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	SILICA, DIS-SOLVED (MG/L AS SIO2)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
JUL											
09...	1230	--	--	10	2.7	.77	1.0	.1	.20	6	<1
17...	1830	--	--	12	3.5	.75	.7	.1	.33	6	<1
20...	0200	--	--	11	3.4	.66	.4	.1	.59	5	<1
24...	2000	47	7.5	12	3.6	.68	.3	.0	.38	10	<1
AUG											
14...	2030	13	5.4	2	.9	.027	<.2	--	.02	3	<1
15-16	--	6	--	3	.6	.24	<.2	--	.05	4	<1
19...	2300	--	--	4	1.3	.19	<.2	--	.06	9	<1
31...	1700	--	--	--	1.3	<.004	<.2	--	.10	20	<1
SEP											
12...	0200	--	--	--	1.5	<.004	<.2	--	.03	3	<1
13...	1830	--	--	5	1.2	.41	.2	.0	.07	3	<1
15...	2100	16	5.3	2	.3	.27	<.2	--	.06	2	2
19...	0100	--	--	3	1.0	.23	1.2	.3	.16	7	<1
21...	1000	--	--	7	2.3	.29	.5	.1	.03	3	<1
24...	2100	--	--	6	1.7	.40	.3	.1	.08	5	<1

DATE	CADMIUM DIS-SOLVED (UG/L AS CD)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
JUL											
09...	1	<3	<10	13	17	<4	12	12	17	8.0	34
17...	<1	<3	<10	<10	<10	<4	<1	<10	35	<6.0	16
20...	<1	<3	<10	15	16	6	2	<10	24	<6.0	8
24...	1	<3	12	16	<10	<4	25	<10	17	<3.0	21
AUG											
14...	1	<3	<10	<10	<10	<4	6	<10	3	<6.0	<3
15-16	2	<3	<10	<10	25	<4	3	<10	2	<6.0	4
19...	1	<3	<10	13	13	<4	9	<10	5	<6.0	10
31...	<1	<3	<10	54	<10	<4	13	<10	4	<6.0	11
SEP											
12...	<1	<3	<10	<10	<10	<4	7	<10	2	<6.0	8
13...	<1	<3	<10	19	<10	<4	5	10	4	<6.0	12
15...	<1	<3	<10	<10	<10	4	4	<10	3	<6.0	13
19...	<1	<3	<10	18	<10	<4	9	<10	4	<6.0	29
21...	<1	<3	<10	<10	<10	<4	<1	<10	4	<6.0	23
24...	3	<3	<10	62	<10	<4	10	<10	3	<6.0	51

DATE	ION CHROM BROMIDE	ION CHROM CHLO-RIDE	ION CHROM FLUO-RIDE	ION CHROM NITRATE	ION CHROM PHOS-PHATE	ION CHROM SULFATE
JUL						
01...	<.10	2.60	0.92	1.00	<.10	5.50
09...	<.10	1.00	.78	.80	<.10	3.70
17...	<.10	.80	1.50	.00	<.10	2.00
20...	<.10	.70	.70	.20	<.10	1.30
24...	<.10	3.60	.60	3.50	<.06	6.30
AUG						
14...	<.05	.10	.03	.32	<.01	1.20
15-16	<.05	.15	.06	.02	<.01	.60
19...	<.05	.43	.19	.54	<.01	4.00
31...	<.05	.50	1.26	.03	<.01	2.10
SEP						
12...	<.05	.20	.26	<.01	<.01	.80
13...	<.05	.60	.23	.69	.40	2.60
15...	<.05	.20	.23	.07	.01	.60
19...	<.05	3.07	1.12	.11	.10	1.58
21...	<.05	.88	.39	.10	<.01	1.58
24...	<.05	.50	.52	.21	.01	2.70

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	$2.54\text{x}10^{1}$	millimeters (mm)
	$2.54\text{x}10^{-2}$	meters (m)
feet (ft)	$3.048\text{x}10^{-1}$	meters (m)
miles (mi)	$1.609\text{x}10^{0}$	kilometers (km)
	Area	
acres	$4.047\text{x}10^{3}$	square meters (m^2)
	$4.047\text{x}10^{-1}$	square hectometers (hm^2)
	$4.047\text{x}10^{-3}$	square kilometers (km^2)
square miles (mi^2)	$2.590\text{x}10^{0}$	square kilometers (km^2)
	Volume	
gallons (gal)	$3.785\text{x}10^{0}$	liters (L)
	$3.785\text{x}10^{0}$	cubic decimeters (dm^3)
	$3.785\text{x}10^{-3}$	cubic meters (m^3)
million gallons	$3.785\text{x}10^{3}$	cubic meters (m^3)
	$3.785\text{x}10^{-3}$	cubic hectometers (hm^3)
cubic feet (ft^3)	$2.832\text{x}10^{1}$	cubic decimeters (dm^3)
	$2.832\text{x}10^{-2}$	cubic meters (m^3)
cfs-days	$2.447\text{x}10^{3}$	cubic meters (m^3)
	$2.447\text{x}10^{-3}$	cubic hectometers (hm^3)
acre-feet (acre-ft)	$1.233\text{x}10^{3}$	cubic meters (m^3)
	$1.233\text{x}10^{-3}$	cubic hectometers (hm^3)
	$1.233\text{x}10^{-6}$	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	$2.832\text{x}10^{1}$	liters per second (L/s)
	$2.832\text{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$2.832\text{x}10^{-2}$	cubic meters per second (m^3/s)
gallons per minute (gal/min)	$6.309\text{x}10^{-2}$	liters per second (L/s)
	$6.309\text{x}10^{-2}$	cubic decimeters per second (dm^3/s)
	$6.309\text{x}10^{-5}$	cubic meters per second (m^3/s)
million gallons per day	$4.381\text{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$4.381\text{x}10^{-2}$	cubic meters per second (m^3/s)
	Mass	
tons (short)	$9.072\text{x}10^{-1}$	megagrams (Mg) or metric tons